



AGENDA

Blackduck City Council - Work Session Meeting

6:00 PM - Monday, March 23, 2026
 City Hall, 8 Summit Drive, Blackduck MN

		Page
1.	CALL TO ORDER	
a.	Roll Call	
b.	Pledge of Allegiance	
2.	APPROVAL OF AGENDA	
3.	OLD BUSINESS	
a.	Blackduck Lift Station Project -	2 - 35
	26 Update - Blackduck MN Black Mallard LS Remodel QTE009680	
	26 Update - Blackduck MN Main LS Pumps Panel QTE009810	
	26 Update - Blackduck MN West End LS Remodel QTE009679	
	Series 2026A GO Sewage Disposal Bonds 2026-03-17	
	Series 2026A GO Sewage Disposal Bonds 20yrs 2026-03-23	
	26-3-20 - Updated Blackduck Lift Station Proposal	
b.	Blackduck Police Department & Beltrami County Sheriff Partnership	
	Consider Public Hearing Date in April or May 2026	
c.	KRLS Library Facility Renovation - Review Budget & Proposed Signage for Building	36 - 37
	Request Council Member Hamilton attend KRLS Meetings	
	Blakduck Community Library3	
	Project Budget worksheet	
d.	Lions Duck & Historic Duck Project - Completion Deadline - August 1, 2026 for Grant Funding Use	
e.	Blackduck City Hall Facility Plans - Electrical & Communication Relocation	38 - 39
	March 27, 2026 @ 2pm - City Hall Committee Meeting - City Hall	
	Order 17246 For Account 4001-03-18-2026_14_10	
	Blackduck city hall service relocate	
4.	NEW BUSINESS	
a.	Public Hearing Notice - Wastewater System Improvements Public Hearing - April 20, 2026	40 - 236
	SKM_C360i26031210080	
	Facility Plan_Final 3-26 - Full Report_R	
5.	ADJOURNMENT	

Bill To
 Blackduck MN, City of
 PO Box 380
 Blackduck MN 56630
 United States
 Phone:

Ship To
 Blackduck MN, City of
 8 Summit Ave
 Blackduck MN 56630
 United States

Details

2026 Update - Black Mallard LS Remodel - Quote for sale and installation of new pumps, control panel, and all piping at your Black Mallard LS. Licensed electrician required by city to mount and land service power for control panel, we will provide start up assistance. Vac truck also required by city while piping work is being done. Freight is not included.

Prepared By	Phone	Email
Ben Edlebeck	877-645-8004	info@minnesotapumpworks.com

Sales Rep	Expires	Terms
Justin MacPherson	03/20/2026	Net 30

Item	Comment	QTY	Rate	Amount
11697 ABS XFP080C CB1.4 PE20/6 2.7/230/3 49' XP 3" D/C	8.4 FLA @ 230V	2	\$7,772.00	\$15,544.00
11430 ABS SEAL LEAK/OVER TEMP RELAY, CA462, DIN RAIL MOUNTED,110/230V-AC		2	\$666.00	\$1,332.00
23271 USEMCO DUPLEX NEMA 4X FLOOR MOUNT 3HP 230V PHASE CONVERSION VFD'S, SENTRY LITE PLC, TRANSDUCER, 3 FLOAT BACKUP, GEN POWER CIRCUITS, 12"X12" SPACE FOR DIALER	Full list of components included.	1	\$24,506.00	\$24,506.00
26261 ABS 4" GRA PEDESTAL KIT DN100 XFP W/ELBOW - 2" SINGLE GR SS UGB INCLUDED		2	\$1,351.00	\$2,702.00
10647 ABS FASTENING KIT HRDWR 8X5/8-11X3, SS, 4" BRACKET TO PUMP		2	\$226.00	\$452.00
19764 PIPE 2" 304SS SCH40 PIPE PE		40	\$24.00	\$960.00
18587 J-HOOK, STAINLESS STEEL		1	\$21.00	\$21.00



Item	Comment	QTY	Rate	Amount
17621 HALLIDAY J6A 316SS 6-HOOK CABLE RACK		1	\$95.00	\$95.00
13369 CHAIN 1/4" 316SS HIGH TEST CHAIN		40	\$8.75	\$350.00
20638 SHACKLE 5/16" 316SS BOW SHACKLE RATED FOR 1,300 LBS		2	\$8.50	\$17.00
10042 4" SB FLANGE COUPLING ADAPTER(FCA) W/OUT PINS		2	\$422.00	\$844.00
26131 PIPE 4" DUCTILE IRON SPOOL 4" x 19'-10" FLXFL	TO MAKE 2EA FLGXPE SPOOLS FOR RISERS CONFIRM RISER LENGTH - MAX RISE EA 9' 10"	1	\$3,300.00	\$3,300.00
25454 VALVE CHECK PRATT 0400-851FL-1-FS-C 4" FLG SWING FLEX CHECK VALVE		2	\$988.00	\$1,976.00
23933 VALVE PLUG PRATT/MILLIKEN 0400-601NITC-L 4" FLG PLUG VALVE W/2" NUT & LEVER		2	\$849.00	\$1,698.00
14807 ELBOW 4" FLANGED 90 DEGREE		2	\$315.00	\$630.00
15545 GASKET 4" X 1/8" FULL FACE GASKET		10	\$15.00	\$150.00
13161 BOLT 5/8 X 3 HEX BOLT ZINC		80	\$1.60	\$128.00
19371 NUT 5/8" ZINC		80	\$0.40	\$32.00
21924 WEDGE ANCHOR 3/4 X 5-1/2 SS		8	\$14.00	\$112.00
21928 WEDGE ANCHOR 3/8 X 3" SS		8	\$3.25	\$26.00
INSTALL SERVICES	2 Tech Mobilization / Installation / On Site Service / Confined Space	1		\$4,438.00



Subtotal \$59,313.00

Total \$59,313.00

Pricing is valid for 10 days and does not include freight charges or applicable taxes.

Items quoted for repair and leftover 30 days, without a decision to repair, will be discarded.

Signature: _____ Date: _____

NOTE: All orders are subject to Tariff Surcharges. Tariff Surcharges are based on Tariff values charged by individual Vendors and are not set amount. These Tariff Surcharges are subject to change at any time.

Online credit card/ECheck payments are handled by a third party processor and 3% fees will apply when making payment.





One - Duplex NEMA 4X (#304 stainless steel) floor mount control panel for operation on a 230-volt 1 phase 3 wire service. Controls to operate two 3 HP motors on a pump down mode and include the following:

- 18" Stainless steel floor stands with ventilated skirts front & rear
- Padlockable 3-point latching handle
- Ventilation louvers & filters
- Inner door
- Lightning arrestor
- (2) Pump circuit breakers
- (2) Mitsubishi F800 series variable frequency drives de-rated for phase service with door mount keypads
- Load center
- Control circuit breaker
- Duplex GFI convenience receptacle
- Touch safe heater with thermostat
- Cooling fan & thermostat
- Serialized UL 698A label relating to hazardous locations with intrinsically safe circuit extensions
- USEMCO "SENTRY Lite" constant speed pump controller with 7" color touch screen operator interface
- Blue Ribbon Birdcage submersible level sensor with 40 feet of cord
- Intrinsically safe barrier protection for level sensor
- (3) Float switches with 50' cord
- Low level light
- High level light
- Pump delay timers
- (2) Hand-Off-Auto selector switches
- (2) Run lights
- (3) Run Time Meters
- (2) Fail lights
- (2) Fail reset push buttons
- Overtemp shutdown
- (2) Overtemp alarm lights
- (2) Seal fail alarm lights
- (2) Overtemp/seal fail reset push buttons
- 120 VAC external alarm light
- 120 VAC external alarm horn with alarm silence push button
- Unpowered dry alarm contacts
- Laminated wiring schematic affixed inside enclosure
- Wire numbered
- Terminal strip
- Factory wired & tested
- One year factory warranty



ACCEPTANCE

The following Terms and Conditions are an integral part of the offer to sell the equipment and/or services offered in this proposal. When the BUYER signifies acceptance of this quotation by submission of a Purchase Order or signed SELLER Quotation, it shall become a binding contract when accepted and signed by an authorized signer of the SELLER. Any changes or amendments to this proposal made by the BUYER must have SELLER's approval in writing to become a part of this contract. These Terms and Conditions and the accompanying Purchase Order or signed SELLER Quotation shall comprise the entire agreement between the parties and no course of prior dealings between the parties and no usage of the trade shall be relevant to supplement or explain any terms used in this contract. Unless stated otherwise, the terms and conditions of the manufacturers listed herein will apply to this quotation. Any attachments or listed documents are considered a part of this quotation and are made part of the agreement. **Quote is firm for thirty (30) days unless otherwise stated on the face of the attached quotation.**

APPROVAL DRAWINGS

All items listed are based on SELLER'S interpretation of the requirements in accordance with the plans and specifications. Any preliminary drawings or literature attached to our quotation are for illustration purposes only to show approximate arrangements. Specific drawings and submittal data will be furnished for approval as required after receipt and acceptance of the BUYER'S order. Any submittal or manuals when provided by SELLER will be in the form of a PDF electronic file only. Any form of media beyond the electronic file would be the responsibility of BUYER. Fabrication of products or equipment ordered will not begin until approval and direction to proceed is received in writing. No warranty is made regarding quantities, materials of construction or type of materials quoted. Operation, installation, and maintenance of materials quoted are the responsibility of the OWNER or CONTRACTOR.

DELIVERY

Any shipment or delivery date recited represents our best estimate, but no liability, direct or indirect, is assumed by SELLER for failure to ship or deliver on such dates. Unless otherwise directed, SELLER shall have the right to make early or partial shipments and invoices covering the same to BUYER shall be due and payable in accordance with payment terms hereof. FOB shall be origin unless stated otherwise on the front of these Terms and Conditions. Delivery schedule(s) will be contingent on supply-chain availability and variability for material components, therefore, lead-times are subject to change without notice. Published weights are careful estimates but are not guaranteed. SELLER will endeavor, insofar, as it is possible, to comply with shipping instructions specified by the Purchaser. However, SELLER reserves the right to ship merchandise by such means of transportation as it may select. The manufacturer will ship the equipment via best way. Demurrage shall be billed to the account of the Purchaser. **DAMAGE CLAIMS:** Care is taken in packaging all shipments. After BUYER has been given the receipt by the transportation company, all claims for breakage or shortages, whether concealed or obvious, must be made in writing by the BUYER to the carrier and SELLER within seven (7) days after receipt of shipment. When damage or shortages are obvious, written comments on the bill of lading are required before the driver is released. **RETURNED PRODUCTS:** In no instance is equipment to be returned without first obtaining SELLER'S written approval and returned materials authorization. If shipment is postponed at the request of the purchaser after manufacturing has been commenced, payment will be due on notice from us that the equipment is ready for shipment. Pro rata payments shall be made for partial shipments.

STORAGE

Any item of the product on which shipment is delayed by BUYER may be placed in storage by SELLER at BUYER'S expense and risk. If a delay in shipment is requested by BUYER after an order has been entered and accepted:

- a. No charge will be made if the request for delay is made more than six (6) weeks before acknowledged shipping date and the requested delay is for a period not in excess of thirty (30) days.
- b. A charge will be made if the requested delay exceeds a period of thirty (30) days or if the request is made within six (6) weeks of the acknowledged shipping date. SELLER will advise BUYER of the charge within ten (10) days of receiving BUYER'S request for delay.
- c. If the product is within six (6) weeks of the acknowledged shipping date, then SELLER has the option of completing, invoicing and storing the product and charging one and one-half percent (1.5%) per month, or the maximum percentage permitted by law, whichever is lesser, of the established price for such product, plus storage cost.

PAYMENT

Payment terms, upon credit approval, are of net thirty (30) days from the date of each invoice for material shipped (or when ready for shipment if shipment is deferred by BUYER) **unless stated otherwise on the face of the attached quotation.** Flow down provisions are not accepted and shall not be enforceable against SELLER. Retention is not allowed. In the event any payment becomes past due, a charge of one-half percent (1.5%) will be assessed monthly. These terms are completely independent from, and not contingent upon, when BUYER receives payment from the OWNER. A processing fee of up to four percent (4%) will be added for credit card payments. All merchandise sold is subject to lien laws. Partial or final payment shall constitute acceptance of delivered materials, products, or equipment.

FORCE MAJEURE

Neither Party will be liable for any failure or delay in performing an obligation under these Terms and Conditions that is due to any of the following causes, to the extent beyond its reasonable control: acts of God, accident, riots, war, terrorist act, epidemic, pandemic, quarantine, civil commotion, breakdown of communication facilities, breakdown of web host, breakdown of internet service provider, natural catastrophes, governmental acts or omissions, changes in laws or regulations, national strikes, fire, explosion, generalized lack of availability of raw materials or energy. For the avoidance of doubt, Force Majeure shall not include (a) financial distress nor the inability of either party to make a profit or avoid a financial loss, (b) changes in market prices or conditions, or (c) a party's financial inability to perform its obligations hereunder.

TAXES AND BONDS

Taxes and bonds are **NOT** included in our pricing. Any applicable taxes or bonds will be added to the price and shown separately on each invoice. All prices exclude sales, use, duties, excise, and other taxes in respect to manufacture, sale, or delivery, all of which are to be paid by the buyer unless a proper exemption certificate is furnished. BUYER agrees to reimburse our company for taxes SELLER must pay on BUYER'S behalf.

PRICE ESCALATION and/or MATERIAL DEPOSITS

If between the proposal date and actual procurement and through no fault of the SELLER, the relevant cost of labor, material, freight, brokerage fees, tariffs, and other SELLER costs combined relating to the contract increase, then the contract price shall be subject to escalation and increased accordingly. If required by the BUYER, increase shall be verified by documentation and the amount of contract price escalation shall be calculated as either the actual increased cost to the Seller or, if agreed by the Parties, the equivalent increase of a relevant industry recognized third-party index. SELLER shall undertake good faith efforts to obtain savings in its procurement of materials to avoid escalation costs. BUYER shall cooperate with SELLER in such efforts to obtain such cost savings. SELLER shall contemporaneously track any escalation costs.



CLAIMS AND BACKCHARGES

BUYER agrees to examine all materials immediately upon delivery and report to SELLER in writing any defects or shortages noted no later than ten (10) days following the date of receipt. The parties agree that if no such claim is made within said time, it shall be considered acceptable and in good order with respect to any defect or shortage which would have been revealed by such an inspection. In no event will SELLER be responsible for any charge for modification, servicing, adjustment or for any other expense without written authorization from SELLER prior to the performance of any such work. IN NO EVENT SHALL SELLER BE LIABLE TO BUYER OR ANY THIRD PARTY FOR ANY LOSS OF USE, REVENUE OR PROFIT, OR FOR CONSEQUENTIAL, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR PUNITIVE DAMAGES, FOR ANY REASON, INCLUDING WITHOUT LIMITATION, DAMAGES ARISING OUT OF A DELAY IN OR FAILURE OF DELIVERY, DEFECTS IN MATERIAL AND WORKMANSHIP AND/OR FAILURE OF GOODS TO PERFORM TO APPLICABLE SPECIFICATIONS, DRAWINGS, BLUEPRINTS OR SAMPLES AS SET FORTH OR DESCRIBED HEREIN, IF ANY, OF A BREACH BY SELLER OF ANY OTHER TERM OR OBLIGATION OF SELLER UNDER THE CONTRACT. No penalty clauses of any description will be effective unless approved in writing over the signature of a principal of SELLER. Under no circumstances shall SELLER be liable for any consequential, special or incidental damages, including liquidated damages, arising from any breach by it in this transaction, AND ALL SUCH CONSEQUENTIAL, SPECIAL AND INCIDENTAL DAMAGES, INCLUDING LIQUIDATED DAMAGES, ARE EXCLUDED FROM ANY REMEDIES AVAILABLE TO THE BUYER.

SECURITY INTEREST & TITLE

Until all amounts due SELLER have been paid in full, SELLER shall retain a security interest in the product and have all rights of a secured party under the Uniform Commercial Code and applicable law, including the right to repossess the product or equipment without legal process and the right to require the BUYER to assemble the equipment and make it available to SELLER at a place reasonably convenient to both parties.

WARRANTY

Equipment and parts not manufactured by the SELLER carry only the warranty of the manufacturer of said parts. SELLER does not make any express or implied warranty for equipment and/or parts it did not manufacture. Credits for defective material and workmanship in said equipment and/or parts are only in accordance with the underlying company policy of the manufacturer. SELLER makes no warranty whatsoever with respect to any equipment and/or parts as to their merchantability or fitness for a particular purpose. It is further agreed that the SELLER assumes no liability whatsoever for failure of equipment due to normal usage and wear.

INDEMNIFICATION

To the fullest extent permitted by the law in which the project is located, BUYER and SELLER shall indemnify and hold one another and their respective employees and agents harmless from and against all claims, damages, losses, liabilities, actions, causes of action, demands, fines, penalties, judgments, costs, and expenses, including but not limited to attorneys' fees, court costs, expert fees and costs, arising out of or resulting from BUYER's or SELLER's own negligent acts, omissions or misconduct, to the extent such negligence is covered by BUYER's and SELLER's respective insurance policies. In the event any third party asserts against SELLER a claim for patent infringement, royalties or licensing fees with respect to BUYER's use of the products, materials, or equipment provided hereunder, BUYER agrees to indemnify SELLER for all liability damages, costs and expenses in connection therewith.

CANCELLATION

Buyer may cancel this contract only in writing signed by BUYER's duly authorized agent and acknowledged in writing by SELLER's duly authorized agent. Should this order be cancelled, BUYER shall be obligated to pay for the level of work performed and products shipped. Work performed includes any engineering, calculations, preparation of submittals, drawings, and/or travel to job site in relation to this order. In addition to any other remedies provided under these Terms and Conditions, SELLER may terminate this contract with immediate effect by providing signed, written notice to BUYER, if BUYER: (i) fails to pay any amount when due under the contract and such failure continues for 30 days after BUYER's receipt of written notice of nonpayment; (ii) has not otherwise performed or complied with any of these Terms and Conditions; or (iii) becomes insolvent, files a petition for bankruptcy or commences or has commenced against it proceedings in bankruptcy, receivership, reorganization or assignment for the benefit of creditors.

FIELD WORK

Unless specifically stated on our quotation, installation, start-up service, field testing, supervision, operation, and training are not included in our pricing of product. In the event that SELLER or any of its employees or agents do perform work or services on-site at the project's location, BUYER agrees to hold SELLER and its employees or agents harmless for any injuries or damage to property caused by their acts or omission, except to the extent said injuries or property damage arise from gross negligence or intentional misconduct.

MODIFICATIONS

This contract can be modified only in writing which specifically states that it amends these Terms and Conditions and is signed by both parties and their duly authorized agents. It is further agreed that this contract shall not be modified in any respect except in writing signed by the party and their duly authorized agent against whom the modification is sought to be enforced.

AUTHORITY OF SELLER'S AGENTS

No agent, employee or representative of the SELLER has any authority to bind the SELLER to any affirmation, representation or warranty concerning the goods sold under this Contract, and unless an affirmation, representation or warranty made by an agent, employee, or representative is specifically included within this written contract, it shall not be enforceable by the BUYER.

NO THIRD-PARTY BENEFICIARIES

This contract is for the sole benefit of BUYER and SELLER and their respective successors and permitted assigns and nothing herein, express or implied, is intended to or shall confer upon any other person or entity any legal or equitable right, benefit, or remedy of any nature whatsoever under or by reason of these Terms and Conditions.

GOVERNING LAW

All matters arising of or relating to the contract or the Terms and Conditions shall be governed by and construed in accordance with the laws of the state in which the project is located.

DISPUTE RESOLUTION

In the event of any dispute between BUYER and SELLER arising out of the terms of the contract and these Terms and Conditions, such dispute shall be decided by arbitration administered by the American Arbitration Association in accordance with the then-prevailing Commercial Arbitration Rules and Mediation Procedures of the American Arbitration Association. BUYER and SELLER mutually agree that any dispute involving claims valued at or above \$1,000,000.00 shall be heard by a panel of three (3) arbitrators. The venue for all arbitration proceedings shall be the State of California. The foregoing agreement to arbitrate shall be specifically enforceable in any court of competent jurisdiction. The award rendered by the arbitrators shall be final and judgment may be entered upon it in accordance with applicable law in any court of competent jurisdiction.

SEVERABILITY

The partial or complete invalidity of any one or more provisions of these Terms and Conditions shall not affect the validity or continuing force and effect of any other provision. If any provision is invalid, in whole or in part, the provision shall be considered reformed to reflect the intent thereof to the greatest extent possible consistent with applicable law.

ASSIGNMENT – DELEGATION

No right or interest in this Contract shall be assigned by the BUYER without the written permission of the SELLER, and no delegation of any obligation owed, or of the performance of any obligation by the BUYER shall be made without the written permission of the SELLER. Any attempted assignment or delegation shall be wholly void and totally ineffective for all purposes unless made in conformity with this paragraph.

Please Remit to:
PO Box 735936
Chicago IL, 60673-5936
Online payment accepted at <http://www.iowapumpworks.com>
Pay Now 3% charge for credit card and \$2.25 charge for e-check
PAST DUE INVOICES ARE SUBJECT TO 1.5% PER MONTH FINANCE CHARGE

Midwest Pump Works
 1 Cannon St W
 Dundas, MN 55019

Bill To
 Blackduck MN, City of
 PO Box 380
 Blackduck MN 56630
 United States
 Phone:

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26839 USEMCO DUPLEX NEMA 4X FLOOR MOUNT 25HP 230V 3PH, SENTRY LITE PLC, TRANSDUCER, 3 FLOAT BACKUP, GEN POWER CIRCUITS, 12"X12" SPACE FOR DIALER	Full list of components included.	1	\$25,321.00	\$25,321.00
ADAPTER BRACKET Group 6" DISCHARGE DUAL RAIL		2		\$2,091.20
INSTALL SERVICES	Mobilization / Installation / On Site Service	1		\$2,488.66



Subtotal \$88,988.86

Total \$88,988.86

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STORAGE

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- a. No charge will be made if the request for delay is made more than six (6) weeks before acknowledged shipping date and the requested delay is for a period not in excess of thirty (30) days.
- b. A charge will be made if the requested delay exceeds a period of thirty (30) days or if the request is made within six (6) weeks of the acknowledged shipping date. SELLER will advise BUYER of the charge within ten (10) days of receiving BUYER'S request for delay.
- c. If the product is within six (6) weeks of the acknowledged shipping date, then SELLER has the option of completing, invoicing and storing the product and charging one and one-half percent (1.5%) per month, or the maximum percentage permitted by law, whichever is lesser, of the established price for such product, plus storage cost.

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Payment terms, upon credit approval, are of net thirty (30) days from the date of each invoice for material shipped (or when ready for shipment if shipment is deferred by BUYER) **unless stated otherwise on the face of the attached quotation.** Flow down provisions are not accepted and shall not be enforceable against SELLER. Retention is not allowed. In the event any payment becomes past due, a charge of one-half percent (1.5%) will be assessed monthly. These terms are completely independent from, and not contingent upon, when BUYER receives payment from the OWNER. A processing fee of up to four percent (4%) will be added for credit card payments. All merchandise sold is subject to lien laws. Partial or final payment shall constitute acceptance of delivered materials, products, or equipment.

FORCE MAJEURE

Neither Party will be liable for any failure or delay in performing an obligation under these Terms and Conditions that is due to any of the following causes, to the extent beyond its reasonable control: acts of God, accident, riots, war, terrorist act, epidemic, pandemic, quarantine, civil commotion, breakdown of communication facilities, breakdown of web host, breakdown of internet service provider, natural catastrophes, governmental acts or omissions, changes in laws or regulations, national strikes, fire, explosion, generalized lack of availability of raw materials or energy. For the avoidance of doubt, Force Majeure shall not include (a) financial distress nor the inability of either party to make a profit or avoid a financial loss, (b) changes in market prices or conditions, or (c) a party's financial inability to perform its obligations hereunder.

TAXES AND BONDS

Taxes and bonds are **NOT** included in our pricing. Any applicable taxes or bonds will be added to the price and shown separately on each invoice. All prices exclude sales, use, duties, excise, and other taxes in respect to manufacture, sale, or delivery, all of which are to be paid by the buyer unless a proper exemption certificate is furnished. BUYER agrees to reimburse our company for taxes SELLER must pay on BUYER'S behalf.

PRICE ESCALATION and/or MATERIAL DEPOSITS

If between the proposal date and actual procurement and through no fault of the SELLER, the relevant cost of labor, material, freight, brokerage fees, tariffs, and other SELLER costs combined relating to the contract increase, then the contract price shall be subject to escalation and increased accordingly. If required by the BUYER, increase shall be verified by documentation and the amount of contract price escalation shall be calculated as either the actual increased cost to the Seller or, if agreed by the Parties, the equivalent increase of a relevant industry recognized third-party index. SELLER shall undertake good faith efforts to obtain savings in its procurement of materials to avoid escalation costs. BUYER shall cooperate with SELLER in such efforts to obtain such cost savings. SELLER shall contemporaneously track any escalation costs.



CLAIMS AND BACKCHARGES

BUYER agrees to examine all materials immediately upon delivery and report to SELLER in writing any defects or shortages noted no later than ten (10) days following the date of receipt. The parties agree that if no such claim is made within said time, it shall be considered acceptable and in good order with respect to any defect or shortage which would have been revealed by such an inspection. In no event will SELLER be responsible for any charge for modification, servicing, adjustment or for any other expense without written authorization from SELLER prior to the performance of any such work. IN NO EVENT SHALL SELLER BE LIABLE TO BUYER OR ANY THIRD PARTY FOR ANY LOSS OF USE, REVENUE OR PROFIT, OR FOR CONSEQUENTIAL, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR PUNITIVE DAMAGES, FOR ANY REASON, INCLUDING WITHOUT LIMITATION, DAMAGES ARISING OUT OF A DELAY IN OR FAILURE OF DELIVERY, DEFECTS IN MATERIAL AND WORKMANSHIP AND/OR FAILURE OF GOODS TO PERFORM TO APPLICABLE SPECIFICATIONS, DRAWINGS, BLUEPRINTS OR SAMPLES AS SET FORTH OR DESCRIBED HEREIN, IF ANY, OF A BREACH BY SELLER OF ANY OTHER TERM OR OBLIGATION OF SELLER UNDER THE CONTRACT. No penalty clauses of any description will be effective unless approved in writing over the signature of a principal of SELLER. Under no circumstances shall SELLER be liable for any consequential, special or incidental damages, including liquidated damages, arising from any breach by it in this transaction, AND ALL SUCH CONSEQUENTIAL, SPECIAL AND INCIDENTAL DAMAGES, INCLUDING LIQUIDATED DAMAGES, ARE EXCLUDED FROM ANY REMEDIES AVAILABLE TO THE BUYER.

SECURITY INTEREST & TITLE

Until all amounts due SELLER have been paid in full, SELLER shall retain a security interest in the product and have all rights of a secured party under the Uniform Commercial Code and applicable law, including the right to repossess the product or equipment without legal process and the right to require the BUYER to assemble the equipment and make it available to SELLER at a place reasonably convenient to both parties.

WARRANTY

Equipment and parts not manufactured by the SELLER carry only the warranty of the manufacturer of said parts. SELLER does not make any express or implied warranty for equipment and/or parts it did not manufacture. Credits for defective material and workmanship in said equipment and/or parts are only in accordance with the underlying company policy of the manufacturer. SELLER makes no warranty whatsoever with respect to any equipment and/or parts as to their merchantability or fitness for a particular purpose. It is further agreed that the SELLER assumes no liability whatsoever for failure of equipment due to normal usage and wear.

INDEMNIFICATION

To the fullest extent permitted by the law in which the project is located, BUYER and SELLER shall indemnify and hold one another and their respective employees and agents harmless from and against all claims, damages, losses, liabilities, actions, causes of action, demands, fines, penalties, judgments, costs, and expenses, including but not limited to attorneys' fees, court costs, expert fees and costs, arising out of or resulting from BUYER's or SELLER's own negligent acts, omissions or misconduct, to the extent such negligence is covered by BUYER's and SELLER's respective insurance policies. In the event any third party asserts against SELLER a claim for patent infringement, royalties or licensing fees with respect to BUYER's use of the products, materials, or equipment provided hereunder, BUYER agrees to indemnify SELLER for all liability damages, costs and expenses in connection therewith.

CANCELLATION

Buyer may cancel this contract only in writing signed by BUYER's duly authorized agent and acknowledged in writing by SELLER's duly authorized agent. Should this order be cancelled, BUYER shall be obligated to pay for the level of work performed and products shipped. Work performed includes any engineering, calculations, preparation of submittals, drawings, and/or travel to job site in relation to this order. In addition to any other remedies provided under these Terms and Conditions, SELLER may terminate this contract with immediate effect by providing signed, written notice to BUYER, if BUYER: (i) fails to pay any amount when due under the contract and such failure continues for 30 days after BUYER's receipt of written notice of nonpayment; (ii) has not otherwise performed or complied with any of these Terms and Conditions; or (iii) becomes insolvent, files a petition for bankruptcy or commences or has commenced against it proceedings in bankruptcy, receivership, reorganization or assignment for the benefit of creditors.

FIELD WORK

Unless specifically stated on our quotation, installation, start-up service, field testing, supervision, operation, and training are not included in our pricing of product. In the event that SELLER or any of its employees or agents do perform work or services on-site at the project's location, BUYER agrees to hold SELLER and its employees or agents harmless for any injuries or damage to property caused by their acts or omission, except to the extent said injuries or property damage arise from gross negligence or intentional misconduct.

MODIFICATIONS

This contract can be modified only in writing which specifically states that it amends these Terms and Conditions and is signed by both parties and their duly authorized agents. It is further agreed that this contract shall not be modified in any respect except in writing signed by the party and their duly authorized agent against whom the modification is sought to be enforced.

AUTHORITY OF SELLER'S AGENTS

No agent, employee or representative of the SELLER has any authority to bind the SELLER to any affirmation, representation or warranty concerning the goods sold under this Contract, and unless an affirmation, representation or warranty made by an agent, employee, or representative is specifically included within this written contract, it shall not be enforceable by the BUYER.

NO THIRD-PARTY BENEFICIARIES

This contract is for the sole benefit of BUYER and SELLER and their respective successors and permitted assigns and nothing herein, express or implied, is intended to or shall confer upon any other person or entity any legal or equitable right, benefit, or remedy of any nature whatsoever under or by reason of these Terms and Conditions.

GOVERNING LAW

All matters arising of or relating to the contract or the Terms and Conditions shall be governed by and construed in accordance with the laws of the state in which the project is located.

DISPUTE RESOLUTION

In the event of any dispute between BUYER and SELLER arising out of the terms of the contract and these Terms and Conditions, such dispute shall be decided by arbitration administered by the American Arbitration Association in accordance with the then-prevailing Commercial Arbitration Rules and Mediation Procedures of the American Arbitration Association. BUYER and SELLER mutually agree that any dispute involving claims valued at or above \$1,000,000.00 shall be heard by a panel of three (3) arbitrators. The venue for all arbitration proceedings shall be the State of California. The foregoing agreement to arbitrate shall be specifically enforceable in any court of competent jurisdiction. The award rendered by the arbitrators shall be final and judgment may be entered upon it in accordance with applicable law in any court of competent jurisdiction.

SEVERABILITY

The partial or complete invalidity of any one or more provisions of these Terms and Conditions shall not affect the validity or continuing force and effect of any other provision. If any provision is invalid, in whole or in part, the provision shall be considered reformed to reflect the intent thereof to the greatest extent possible consistent with applicable law.

ASSIGNMENT – DELEGATION

No right or interest in this Contract shall be assigned by the BUYER without the written permission of the SELLER, and no delegation of any obligation owed, or of the performance of any obligation by the BUYER shall be made without the written permission of the SELLER. Any attempted assignment or delegation shall be wholly void and totally ineffective for all purposes unless made in conformity with this paragraph.

Please Remit to:
PO Box 735936
Chicago IL, 60673-5936
Online payment accepted at <http://www.iowapumpworks.com>
Pay Now 3% charge for credit card and \$2.25 charge for e-check
PAST DUE INVOICES ARE SUBJECT TO 1.5% PER MONTH FINANCE CHARGE

Bill To
 Blackduck MN, City of
 PO Box 380
 Blackduck MN 56630
 United States
 Phone:

Ship To
 Blackduck MN, City of
 8 Summit Ave
 Blackduck MN 56630
 United States

Details

2026 Update - West End LS Remodel - Quote for sale and installation of new pumps, control panel, and all piping at your West End LS. Licensed electrician required by city to mount and land service power for control panel, we will provide start up assistance. Vac truck also required by city while piping work is being done. Freight is not included.

Prepared By	Phone	Email
Ben Edlebeck	877-645-8004	info@minnesotapumpworks.com

Sales Rep	Expires	Terms
Justin MacPherson	03/20/2026	Net 30

Item	Comment	QTY	Rate	Amount
11693 ABS XFP080C CB1.2 PE20/6 2.7/230/3 49' XP 3" D/C	8.4 FLA @ 230V	2	\$7,772.00	\$15,544.00
11430 ABS SEAL LEAK/OVER TEMP RELAY, CA462, DIN RAIL MOUNTED,110/230V-AC		2	\$666.00	\$1,332.00
23271 USEMCO DUPLEX NEMA 4X FLOOR MOUNT 3HP 230V PHASE CONVERSION VFD'S, SENTRY LITE PLC, TRANSDUCER, 3 FLOAT BACKUP, GEN POWER CIRCUITS, 12"X12" SPACE FOR DIALER	Full list of components included.	1	\$24,506.00	\$24,506.00
26261 ABS 4" GRA PEDESTAL KIT DN100 XFP W/ELBOW - 2" SINGLE GR SS UGB INCLUDED		2	\$1,351.00	\$2,702.00
10647 ABS FASTENING KIT HRDWR 8X5/8-11X3, SS, 4" BRACKET TO PUMP		2	\$226.00	\$452.00
19764 PIPE 2" 304SS SCH40 PIPE PE		40	\$24.00	\$960.00
18587 J-HOOK, STAINLESS STEEL		1	\$21.00	\$21.00



Item	Comment	QTY	Rate	Amount
17621 HALLIDAY J6A 316SS 6-HOOK CABLE RACK		1	\$95.00	\$95.00
13369 CHAIN 1/4" 316SS HIGH TEST CHAIN		40	\$8.75	\$350.00
20638 SHACKLE 5/16" 316SS BOW SHACKLE RATED FOR 1,300 LBS		2	\$8.50	\$17.00
10042 4" SB FLANGE COUPLING ADAPTER(FCA) W/OUT PINS		2	\$422.00	\$844.00
26131 PIPE 4" DUCTILE IRON SPOOL 4" x 19'-10" FLXFL	TO MAKE 2EA FLGXPE SPOOLS FOR RISERS CONFIRM RISER LENGTH - MAX RISE EA 9' 10"	1	\$3,300.00	\$3,300.00
25454 VALVE CHECK PRATT 0400-851FL-1-FS-C 4" FLG SWING FLEX CHECK VALVE		2	\$988.00	\$1,976.00
23933 VALVE PLUG PRATT/MILLIKEN 0400-601NITC-L 4" FLG PLUG VALVE W/2" NUT & LEVER		2	\$849.00	\$1,698.00
14807 ELBOW 4" FLANGED 90 DEGREE		2	\$315.00	\$630.00
15545 GASKET 4" X 1/8" FULL FACE GASKET		10	\$15.00	\$150.00
13161 BOLT 5/8 X 3 HEX BOLT ZINC		80	\$1.60	\$128.00
19371 NUT 5/8" ZINC		80	\$0.40	\$32.00
21924 WEDGE ANCHOR 3/4 X 5-1/2 SS		8	\$14.00	\$112.00
21928 WEDGE ANCHOR 3/8 X 3" SS		8	\$3.25	\$26.00
INSTALL SERVICES	2 Tech Mobilization / Installation / On Site Service / Confined Space	1		\$4,438.00



Subtotal \$59,313.00

Total \$59,313.00

Pricing is valid for 10 days and does not include freight charges or applicable taxes.

Items quoted for repair and leftover 30 days, without a decision to repair, will be discarded.

Signature: _____ Date: _____

NOTE: All orders are subject to Tariff Surcharges. Tariff Surcharges are based on Tariff values charged by individual Vendors and are not set amount. These Tariff Surcharges are subject to change at any time.

Online credit card/ECheck payments are handled by a third party processor and 3% fees will apply when making payment.





One - Duplex NEMA 4X (#304 stainless steel) floor mount control panel for operation on a 230-volt 1 phase 3 wire service. Controls to operate two 3 HP motors on a pump down mode and include the following:

- 18" Stainless steel floor stands with ventilated skirts front & rear
- Padlockable 3-point latching handle
- Ventilation louvers & filters
- Inner door
- Lightning arrestor
- (2) Pump circuit breakers
- (2) Mitsubishi F800 series variable frequency drives de-rated for phase service with door mount keypads
- Load center
- Control circuit breaker
- Duplex GFI convenience receptacle
- Touch safe heater with thermostat
- Cooling fan & thermostat
- Serialized UL 698A label relating to hazardous locations with intrinsically safe circuit extensions
- USEMCO "SENTRY Lite" constant speed pump controller with 7" color touch screen operator interface
- Blue Ribbon Birdcage submersible level sensor with 40 feet of cord
- Intrinsically safe barrier protection for level sensor
- (3) Float switches with 50' cord
- Low level light
- High level light
- Pump delay timers
- (2) Hand-Off-Auto selector switches
- (2) Run lights
- (3) Run Time Meters
- (2) Fail lights
- (2) Fail reset push buttons
- Overtemp shutdown
- (2) Overtemp alarm lights
- (2) Seal fail alarm lights
- (2) Overtemp/seal fail reset push buttons
- 120 VAC external alarm light
- 120 VAC external alarm horn with alarm silence push button
- Unpowered dry alarm contacts
- Laminated wiring schematic affixed inside enclosure
- Wire numbered
- Terminal strip
- Factory wired & tested
- One year factory warranty



ACCEPTANCE

The following Terms and Conditions are an integral part of the offer to sell the equipment and/or services offered in this proposal. When the BUYER signifies acceptance of this quotation by submission of a Purchase Order or signed SELLER Quotation, it shall become a binding contract when accepted and signed by an authorized signer of the SELLER. Any changes or amendments to this proposal made by the BUYER must have SELLER's approval in writing to become a part of this contract. These Terms and Conditions and the accompanying Purchase Order or signed SELLER Quotation shall comprise the entire agreement between the parties and no course of prior dealings between the parties and no usage of the trade shall be relevant to supplement or explain any terms used in this contract. Unless stated otherwise, the terms and conditions of the manufacturers listed herein will apply to this quotation. Any attachments or listed documents are considered a part of this quotation and are made part of the agreement. **Quote is firm for thirty (30) days unless otherwise stated on the face of the attached quotation.**

APPROVAL DRAWINGS

All items listed are based on SELLER'S interpretation of the requirements in accordance with the plans and specifications. Any preliminary drawings or literature attached to our quotation are for illustration purposes only to show approximate arrangements. Specific drawings and submittal data will be furnished for approval as required after receipt and acceptance of the BUYER'S order. Any submittal or manuals when provided by SELLER will be in the form of a PDF electronic file only. Any form of media beyond the electronic file would be the responsibility of BUYER. Fabrication of products or equipment ordered will not begin until approval and direction to proceed is received in writing. No warranty is made regarding quantities, materials of construction or type of materials quoted. Operation, installation, and maintenance of materials quoted are the responsibility of the OWNER or CONTRACTOR.

DELIVERY

Any shipment or delivery date recited represents our best estimate, but no liability, direct or indirect, is assumed by SELLER for failure to ship or deliver on such dates. Unless otherwise directed, SELLER shall have the right to make early or partial shipments and invoices covering the same to BUYER shall be due and payable in accordance with payment terms hereof. FOB shall be origin unless stated otherwise on the front of these Terms and Conditions. Delivery schedule(s) will be contingent on supply-chain availability and variability for material components, therefore, lead-times are subject to change without notice. Published weights are careful estimates but are not guaranteed. SELLER will endeavor, insofar, as it is possible, to comply with shipping instructions specified by the Purchaser. However, SELLER reserves the right to ship merchandise by such means of transportation as it may select. The manufacturer will ship the equipment via best way. Demurrage shall be billed to the account of the Purchaser. **DAMAGE CLAIMS:** Care is taken in packaging all shipments. After BUYER has been given the receipt by the transportation company, all claims for breakage or shortages, whether concealed or obvious, must be made in writing by the BUYER to the carrier and SELLER within seven (7) days after receipt of shipment. When damage or shortages are obvious, written comments on the bill of lading are required before the driver is released. **RETURNED PRODUCTS:** In no instance is equipment to be returned without first obtaining SELLER'S written approval and returned materials authorization. If shipment is postponed at the request of the purchaser after manufacturing has been commenced, payment will be due on notice from us that the equipment is ready for shipment. Pro rata payments shall be made for partial shipments.

STORAGE

Any item of the product on which shipment is delayed by BUYER may be placed in storage by SELLER at BUYER'S expense and risk. If a delay in shipment is requested by BUYER after an order has been entered and accepted:

- a. No charge will be made if the request for delay is made more than six (6) weeks before acknowledged shipping date and the requested delay is for a period not in excess of thirty (30) days.
- b. A charge will be made if the requested delay exceeds a period of thirty (30) days or if the request is made within six (6) weeks of the acknowledged shipping date. SELLER will advise BUYER of the charge within ten (10) days of receiving BUYER'S request for delay.
- c. If the product is within six (6) weeks of the acknowledged shipping date, then SELLER has the option of completing, invoicing and storing the product and charging one and one-half percent (1.5%) per month, or the maximum percentage permitted by law, whichever is lesser, of the established price for such product, plus storage cost.

PAYMENT

Payment terms, upon credit approval, are of net thirty (30) days from the date of each invoice for material shipped (or when ready for shipment if shipment is deferred by BUYER) **unless stated otherwise on the face of the attached quotation.** Flow down provisions are not accepted and shall not be enforceable against SELLER. Retention is not allowed. In the event any payment becomes past due, a charge of one-half percent (1.5%) will be assessed monthly. These terms are completely independent from, and not contingent upon, when BUYER receives payment from the OWNER. A processing fee of up to four percent (4%) will be added for credit card payments. All merchandise sold is subject to lien laws. Partial or final payment shall constitute acceptance of delivered materials, products, or equipment.

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BUYER agrees to examine all materials immediately upon delivery and report to SELLER in writing any defects or shortages noted no later than ten (10) days following the date of receipt. The parties agree that if no such claim is made within said time, it shall be considered acceptable and in good order with respect to any defect or shortage which would have been revealed by such an inspection. In no event will SELLER be responsible for any charge for modification, servicing, adjustment or for any other expense without written authorization from SELLER prior to the performance of any such work. IN NO EVENT SHALL SELLER BE LIABLE TO BUYER OR ANY THIRD PARTY FOR ANY LOSS OF USE, REVENUE OR PROFIT, OR FOR CONSEQUENTIAL, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR PUNITIVE DAMAGES, FOR ANY REASON, INCLUDING WITHOUT LIMITATION, DAMAGES ARISING OUT OF A DELAY IN OR FAILURE OF DELIVERY, DEFECTS IN MATERIAL AND WORKMANSHIP AND/OR FAILURE OF GOODS TO PERFORM TO APPLICABLE SPECIFICATIONS, DRAWINGS, BLUEPRINTS OR SAMPLES AS SET FORTH OR DESCRIBED HEREIN, IF ANY, OF A BREACH BY SELLER OF ANY OTHER TERM OR OBLIGATION OF SELLER UNDER THE CONTRACT. No penalty clauses of any description will be effective unless approved in writing over the signature of a principal of SELLER. Under no circumstances shall SELLER be liable for any consequential, special or incidental damages, including liquidated damages, arising from any breach by it in this transaction, AND ALL SUCH CONSEQUENTIAL, SPECIAL AND INCIDENTAL DAMAGES, INCLUDING LIQUIDATED DAMAGES, ARE EXCLUDED FROM ANY REMEDIES AVAILABLE TO THE BUYER.

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INDEMNIFICATION

To the fullest extent permitted by the law in which the project is located, BUYER and SELLER shall indemnify and hold one another and their respective employees and agents harmless from and against all claims, damages, losses, liabilities, actions, causes of action, demands, fines, penalties, judgments, costs, and expenses, including but not limited to attorneys' fees, court costs, expert fees and costs, arising out of or resulting from BUYER's or SELLER's own negligent acts, omissions or misconduct, to the extent such negligence is covered by BUYER's and SELLER's respective insurance policies. In the event any third party asserts against SELLER a claim for patent infringement, royalties or licensing fees with respect to BUYER's use of the products, materials, or equipment provided hereunder, BUYER agrees to indemnify SELLER for all liability damages, costs and expenses in connection therewith.

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MODIFICATIONS

This contract can be modified only in writing which specifically states that it amends these Terms and Conditions and is signed by both parties and their duly authorized agents. It is further agreed that this contract shall not be modified in any respect except in writing signed by the party and their duly authorized agent against whom the modification is sought to be enforced.

AUTHORITY OF SELLER'S AGENTS

No agent, employee or representative of the SELLER has any authority to bind the SELLER to any affirmation, representation or warranty concerning the goods sold under this Contract, and unless an affirmation, representation or warranty made by an agent, employee, or representative is specifically included within this written contract, it shall not be enforceable by the BUYER.

NO THIRD-PARTY BENEFICIARIES

This contract is for the sole benefit of BUYER and SELLER and their respective successors and permitted assigns and nothing herein, express or implied, is intended to or shall confer upon any other person or entity any legal or equitable right, benefit, or remedy of any nature whatsoever under or by reason of these Terms and Conditions.

GOVERNING LAW

All matters arising of or relating to the contract or the Terms and Conditions shall be governed by and construed in accordance with the laws of the state in which the project is located.

DISPUTE RESOLUTION

In the event of any dispute between BUYER and SELLER arising out of the terms of the contract and these Terms and Conditions, such dispute shall be decided by arbitration administered by the American Arbitration Association in accordance with the then-prevailing Commercial Arbitration Rules and Mediation Procedures of the American Arbitration Association. BUYER and SELLER mutually agree that any dispute involving claims valued at or above \$1,000,000.00 shall be heard by a panel of three (3) arbitrators. The venue for all arbitration proceedings shall be the State of California. The foregoing agreement to arbitrate shall be specifically enforceable in any court of competent jurisdiction. The award rendered by the arbitrators shall be final and judgment may be entered upon it in accordance with applicable law in any court of competent jurisdiction.

SEVERABILITY

The partial or complete invalidity of any one or more provisions of these Terms and Conditions shall not affect the validity or continuing force and effect of any other provision. If any provision is invalid, in whole or in part, the provision shall be considered reformed to reflect the intent thereof to the greatest extent possible consistent with applicable law.

ASSIGNMENT – DELEGATION

No right or interest in this Contract shall be assigned by the BUYER without the written permission of the SELLER, and no delegation of any obligation owed, or of the performance of any obligation by the BUYER shall be made without the written permission of the SELLER. Any attempted assignment or delegation shall be wholly void and totally ineffective for all purposes unless made in conformity with this paragraph.

Please Remit to:
PO Box 735936
Chicago IL, 60673-5936
Online payment accepted at <http://www.iowapumpworks.com>
Pay Now 3% charge for credit card and \$2.25 charge for e-check
PAST DUE INVOICES ARE SUBJECT TO 1.5% PER MONTH FINANCE CHARGE

City of Blackduck, Minnesota

\$675,000 General Obligation Sewage Disposal System Bonds, Series 2026A
Assumes Current Market BQ Credit Enhanced AAA Rates plus 50bps
No Underlying Rating - MN Statute 115

Sources & Uses

Dated 07/01/2026 | Delivered 07/01/2026

Sources Of Funds

Par Amount of Bonds	\$675,000.00
Total Sources	\$675,000.00

Uses Of Funds

Total Underwriter's Discount (1.500%)	10,125.00
Costs of Issuance	49,000.00
Deposit to Capitalized Interest (CIF) Fund	14,825.42
Deposit to Project Construction Fund	600,000.00
Rounding Amount	1,049.58
Total Uses	\$675,000.00

City of Blackduck, Minnesota

\$675,000 General Obligation Sewage Disposal System Bonds, Series 2026A

Assumes Current Market BQ Credit Enhanced AAA Rates plus 50bps

No Underlying Rating - MN Statute 115

Net Debt Service Schedule

Date	Principal	Coupon	Interest	Total P+I	CIF	Net New D/S	Fiscal Total
07/01/2026	-	-	-	-	-	-	-
02/01/2027	-	-	14,825.42	14,825.42	(14,825.42)	-	-
08/01/2027	-	-	12,707.50	12,707.50	-	12,707.50	-
02/01/2028	35,000.00	3.100%	12,707.50	47,707.50	-	47,707.50	60,415.00
08/01/2028	-	-	12,165.00	12,165.00	-	12,165.00	-
02/01/2029	35,000.00	3.150%	12,165.00	47,165.00	-	47,165.00	59,330.00
08/01/2029	-	-	11,613.75	11,613.75	-	11,613.75	-
02/01/2030	35,000.00	3.200%	11,613.75	46,613.75	-	46,613.75	58,227.50
08/01/2030	-	-	11,053.75	11,053.75	-	11,053.75	-
02/01/2031	40,000.00	3.300%	11,053.75	51,053.75	-	51,053.75	62,107.50
08/01/2031	-	-	10,393.75	10,393.75	-	10,393.75	-
02/01/2032	40,000.00	3.400%	10,393.75	50,393.75	-	50,393.75	60,787.50
08/01/2032	-	-	9,713.75	9,713.75	-	9,713.75	-
02/01/2033	40,000.00	3.500%	9,713.75	49,713.75	-	49,713.75	59,427.50
08/01/2033	-	-	9,013.75	9,013.75	-	9,013.75	-
02/01/2034	45,000.00	3.600%	9,013.75	54,013.75	-	54,013.75	63,027.50
08/01/2034	-	-	8,203.75	8,203.75	-	8,203.75	-
02/01/2035	45,000.00	3.700%	8,203.75	53,203.75	-	53,203.75	61,407.50
08/01/2035	-	-	7,371.25	7,371.25	-	7,371.25	-
02/01/2036	45,000.00	3.800%	7,371.25	52,371.25	-	52,371.25	59,742.50
08/01/2036	-	-	6,516.25	6,516.25	-	6,516.25	-
02/01/2037	45,000.00	3.900%	6,516.25	51,516.25	-	51,516.25	58,032.50
08/01/2037	-	-	5,638.75	5,638.75	-	5,638.75	-
02/01/2038	50,000.00	4.000%	5,638.75	55,638.75	-	55,638.75	61,277.50
08/01/2038	-	-	4,638.75	4,638.75	-	4,638.75	-
02/01/2039	50,000.00	4.100%	4,638.75	54,638.75	-	54,638.75	59,277.50
08/01/2039	-	-	3,613.75	3,613.75	-	3,613.75	-
02/01/2040	55,000.00	4.200%	3,613.75	58,613.75	-	58,613.75	62,227.50
08/01/2040	-	-	2,458.75	2,458.75	-	2,458.75	-
02/01/2041	55,000.00	4.250%	2,458.75	57,458.75	-	57,458.75	59,917.50
08/01/2041	-	-	1,290.00	1,290.00	-	1,290.00	-
02/01/2042	60,000.00	4.300%	1,290.00	61,290.00	-	61,290.00	62,580.00
Total	\$675,000.00	-	\$247,610.42	\$922,610.42	(14,825.42)	\$907,785.00	-

Significant Dates

Dated	7/01/2026
First Coupon Date	2/01/2027

Yield Statistics

Bond Year Dollars	\$6,268.75
Average Life	9.287 Years
Average Coupon	3.9499170%
Net Interest Cost (NIC)	4.1114324%
True Interest Cost (TIC)	4.1291581%
Bond Yield for Arbitrage Purposes	3.9272574%
All Inclusive Cost (AIC)	5.1709340%

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Net Interest Cost	3.9499170%
Weighted Average Maturity	9.287 Years

Series 2026A GO Sewage Di | SINGLE PURPOSE | 3/17/2026 | 11:45 AM

City of Blackduck, Minnesota

\$675,000 General Obligation Sewage Disposal System Bonds, Series 2026A

Assumes Current Market BQ Credit Enhanced AAA Rates plus 50bps

No Underlying Rating - MN Statute 115

Debt Service Schedule

Date	Principal	Coupon	Interest	Total P+I	CIF	Net New D/S	105% of Total
02/01/2027	-	-	14,825.42	14,825.42	(14,825.42)	-	-
02/01/2028	35,000.00	3.100%	25,415.00	60,415.00	-	60,415.00	63,435.75
02/01/2029	35,000.00	3.150%	24,330.00	59,330.00	-	59,330.00	62,296.50
02/01/2030	35,000.00	3.200%	23,227.50	58,227.50	-	58,227.50	61,138.88
02/01/2031	40,000.00	3.300%	22,107.50	62,107.50	-	62,107.50	65,212.88
02/01/2032	40,000.00	3.400%	20,787.50	60,787.50	-	60,787.50	63,826.88
02/01/2033	40,000.00	3.500%	19,427.50	59,427.50	-	59,427.50	62,398.88
02/01/2034	45,000.00	3.600%	18,027.50	63,027.50	-	63,027.50	66,178.88
02/01/2035	45,000.00	3.700%	16,407.50	61,407.50	-	61,407.50	64,477.88
02/01/2036	45,000.00	3.800%	14,742.50	59,742.50	-	59,742.50	62,729.63
02/01/2037	45,000.00	3.900%	13,032.50	58,032.50	-	58,032.50	60,934.13
02/01/2038	50,000.00	4.000%	11,277.50	61,277.50	-	61,277.50	64,341.38
02/01/2039	50,000.00	4.100%	9,277.50	59,277.50	-	59,277.50	62,241.38
02/01/2040	55,000.00	4.200%	7,227.50	62,227.50	-	62,227.50	65,338.88
02/01/2041	55,000.00	4.250%	4,917.50	59,917.50	-	59,917.50	62,913.38
02/01/2042	60,000.00	4.300%	2,580.00	62,580.00	-	62,580.00	65,709.00
Total	\$675,000.00	-	\$247,610.42	\$922,610.42	(14,825.42)	\$907,785.00	\$953,174.25

Significant Dates

Dated	7/01/2026
First Coupon Date	2/01/2027

Yield Statistics

Bond Year Dollars	\$6,268.75
Average Life	9.287 Years
Average Coupon	3.9499170%
Net Interest Cost (NIC)	4.1114324%
True Interest Cost (TIC)	4.1291581%
Bond Yield for Arbitrage Purposes	3.9272574%
All Inclusive Cost (AIC)	5.1709340%

City of Blackduck, Minnesota

\$675,000 General Obligation Sewage Disposal System Bonds, Series 2026A
Assumes Current Market BQ Credit Enhanced AAA Rates plus 50bps
No Underlying Rating - MN Statute 115 - 20 Years

Sources & Uses

Dated 07/01/2026 | Delivered 07/01/2026

Sources Of Funds

Par Amount of Bonds	\$675,000.00
Total Sources	\$675,000.00

Uses Of Funds

Total Underwriter's Discount (1.500%)	10,125.00
Costs of Issuance	49,000.00
Deposit to Capitalized Interest (CIF) Fund	15,757.29
Deposit to Project Construction Fund	600,000.00
Rounding Amount	117.71
Total Uses	\$675,000.00

City of Blackduck, Minnesota

\$675,000 General Obligation Sewage Disposal System Bonds, Series 2026A

Assumes Current Market BQ Credit Enhanced AAA Rates plus 50bps

No Underlying Rating - MN Statute 115 - 20 Years

Net Debt Service Schedule

Date	Principal	Coupon	Interest	Total P+I	CIF	Net New D/S	Fiscal Total
07/01/2026	-	-	-	-	-	-	-
02/01/2027	-	-	15,757.29	15,757.29	(15,757.29)	-	-
08/01/2027	-	-	13,506.25	13,506.25	-	13,506.25	-
02/01/2028	25,000.00	3.100%	13,506.25	38,506.25	-	38,506.25	52,012.50
08/01/2028	-	-	13,118.75	13,118.75	-	13,118.75	-
02/01/2029	25,000.00	3.150%	13,118.75	38,118.75	-	38,118.75	51,237.50
08/01/2029	-	-	12,725.00	12,725.00	-	12,725.00	-
02/01/2030	25,000.00	3.200%	12,725.00	37,725.00	-	37,725.00	50,450.00
08/01/2030	-	-	12,325.00	12,325.00	-	12,325.00	-
02/01/2031	25,000.00	3.300%	12,325.00	37,325.00	-	37,325.00	49,650.00
08/01/2031	-	-	11,912.50	11,912.50	-	11,912.50	-
02/01/2032	25,000.00	3.400%	11,912.50	36,912.50	-	36,912.50	48,825.00
08/01/2032	-	-	11,487.50	11,487.50	-	11,487.50	-
02/01/2033	30,000.00	3.500%	11,487.50	41,487.50	-	41,487.50	52,975.00
08/01/2033	-	-	10,962.50	10,962.50	-	10,962.50	-
02/01/2034	30,000.00	3.600%	10,962.50	40,962.50	-	40,962.50	51,925.00
08/01/2034	-	-	10,422.50	10,422.50	-	10,422.50	-
02/01/2035	30,000.00	3.700%	10,422.50	40,422.50	-	40,422.50	50,845.00
08/01/2035	-	-	9,867.50	9,867.50	-	9,867.50	-
02/01/2036	30,000.00	3.800%	9,867.50	39,867.50	-	39,867.50	49,735.00
08/01/2036	-	-	9,297.50	9,297.50	-	9,297.50	-
02/01/2037	30,000.00	3.900%	9,297.50	39,297.50	-	39,297.50	48,595.00
08/01/2037	-	-	8,712.50	8,712.50	-	8,712.50	-
02/01/2038	35,000.00	4.000%	8,712.50	43,712.50	-	43,712.50	52,425.00
08/01/2038	-	-	8,012.50	8,012.50	-	8,012.50	-
02/01/2039	35,000.00	4.100%	8,012.50	43,012.50	-	43,012.50	51,025.00
08/01/2039	-	-	7,295.00	7,295.00	-	7,295.00	-
02/01/2040	35,000.00	4.200%	7,295.00	42,295.00	-	42,295.00	49,590.00
08/01/2040	-	-	6,560.00	6,560.00	-	6,560.00	-
02/01/2041	35,000.00	4.250%	6,560.00	41,560.00	-	41,560.00	48,120.00
08/01/2041	-	-	5,816.25	5,816.25	-	5,816.25	-
02/01/2042	40,000.00	4.300%	5,816.25	45,816.25	-	45,816.25	51,632.50
08/01/2042	-	-	4,956.25	4,956.25	-	4,956.25	-
02/01/2043	40,000.00	4.400%	4,956.25	44,956.25	-	44,956.25	49,912.50
08/01/2043	-	-	4,076.25	4,076.25	-	4,076.25	-
02/01/2044	40,000.00	4.450%	4,076.25	44,076.25	-	44,076.25	48,152.50
08/01/2044	-	-	3,186.25	3,186.25	-	3,186.25	-
02/01/2045	45,000.00	4.500%	3,186.25	48,186.25	-	48,186.25	51,372.50
08/01/2045	-	-	2,173.75	2,173.75	-	2,173.75	-
02/01/2046	45,000.00	4.550%	2,173.75	47,173.75	-	47,173.75	49,347.50
08/01/2046	-	-	1,150.00	1,150.00	-	1,150.00	-
02/01/2047	50,000.00	4.600%	1,150.00	51,150.00	-	51,150.00	52,300.00
Total	\$675,000.00	-	\$350,884.79	\$1,025,884.79	(15,757.29)	\$1,010,127.50	-

Significant Dates

Dated	7/01/2026
First Coupon Date	2/01/2027

Yield Statistics

Bond Year Dollars	\$8,303.75
Average Life	12.302 Years
Average Coupon	4.2256184%
Net Interest Cost (NIC)	4.3475513%
True Interest Cost (TIC)	4.3563075%
Bond Yield for Arbitrage Purposes	4.1912605%
All Inclusive Cost (AIC)	5.2095818%

IRS Form 8038

Net Interest Cost	4.2256184%
Weighted Average Maturity	12.302 Years

Series 2026A GO Sewage Di | SINGLE PURPOSE | 3/23/2026 | 8:42 AM

City of Blackduck, Minnesota

\$675,000 General Obligation Sewage Disposal System Bonds, Series 2026A

Assumes Current Market BQ Credit Enhanced AAA Rates plus 50bps

No Underlying Rating - MN Statute 115 - 20 Years

Debt Service Schedule

Date	Principal	Coupon	Interest	Total P+I	CIF	Net New D/S	105% of Total
02/01/2027	-	-	15,757.29	15,757.29	(15,757.29)	-	-
02/01/2028	25,000.00	3.100%	27,012.50	52,012.50	-	52,012.50	54,613.13
02/01/2029	25,000.00	3.150%	26,237.50	51,237.50	-	51,237.50	53,799.38
02/01/2030	25,000.00	3.200%	25,450.00	50,450.00	-	50,450.00	52,972.50
02/01/2031	25,000.00	3.300%	24,650.00	49,650.00	-	49,650.00	52,132.50
02/01/2032	25,000.00	3.400%	23,825.00	48,825.00	-	48,825.00	51,266.25
02/01/2033	30,000.00	3.500%	22,975.00	52,975.00	-	52,975.00	55,623.75
02/01/2034	30,000.00	3.600%	21,925.00	51,925.00	-	51,925.00	54,521.25
02/01/2035	30,000.00	3.700%	20,845.00	50,845.00	-	50,845.00	53,387.25
02/01/2036	30,000.00	3.800%	19,735.00	49,735.00	-	49,735.00	52,221.75
02/01/2037	30,000.00	3.900%	18,595.00	48,595.00	-	48,595.00	51,024.75
02/01/2038	35,000.00	4.000%	17,425.00	52,425.00	-	52,425.00	55,046.25
02/01/2039	35,000.00	4.100%	16,025.00	51,025.00	-	51,025.00	53,576.25
02/01/2040	35,000.00	4.200%	14,590.00	49,590.00	-	49,590.00	52,069.50
02/01/2041	35,000.00	4.250%	13,120.00	48,120.00	-	48,120.00	50,526.00
02/01/2042	40,000.00	4.300%	11,632.50	51,632.50	-	51,632.50	54,214.13
02/01/2043	40,000.00	4.400%	9,912.50	49,912.50	-	49,912.50	52,408.13
02/01/2044	40,000.00	4.450%	8,152.50	48,152.50	-	48,152.50	50,560.13
02/01/2045	45,000.00	4.500%	6,372.50	51,372.50	-	51,372.50	53,941.13
02/01/2046	45,000.00	4.550%	4,347.50	49,347.50	-	49,347.50	51,814.88
02/01/2047	50,000.00	4.600%	2,300.00	52,300.00	-	52,300.00	54,915.00
Total	\$675,000.00	-	\$350,884.79	\$1,025,884.79	(15,757.29)	\$1,010,127.50	\$1,060,633.88

Significant Dates

Dated	7/01/2026
First Coupon Date	2/01/2027

Yield Statistics

Bond Year Dollars	\$8,303.75
Average Life	12.302 Years
Average Coupon	4.2256184%
Net Interest Cost (NIC)	4.3475513%
True Interest Cost (TIC)	4.3563075%
Bond Yield for Arbitrage Purposes	4.1912605%
All Inclusive Cost (AIC)	5.2095818%

March 20, 2026

Honorable Mayor and City Council
City of Blackduck
8 Summit Ave NE
Blackduck, MN 56630

Professional Services Proposal Lift Station Rehabilitation Project

Dear Honorable Mayor and City Council,

Thank you for the opportunity to assist the City of Blackduck with your Lift Station Rehabilitation Project. Widseth Smith Nolting & Associates, Inc. (dba Widseth) is pleased to submit a proposal for professional design and construction administration services.

Project Understanding

We understand four (4) lift stations are failing and in need of rehabilitation prior to the large project identified for the City of Blackduck. Our work will consist of preparation of Plans and Specifications for obtaining competitive bids to complete the rehabilitation of the sanitary sewer lift stations. These include the Main, West End (Oscar), Drake and Black Mallard Lift Stations. A permanent generator will be provided at the lift station. The force main leaving the Drake Motel lift station will need replacement to Summit Ave. Upon execution of a construction contract, Widseth will provide construction administration and observation services.

General Scope of Work

Based on our knowledge and preparation of the Preliminary Engineering Report (PER), quotes received from Minnesota Pump works, and discussions with Mike Schwanke, Public Works Director, the scope of work at each of the lift stations will include:

- Removal and replacement of existing ductile iron piping, fittings and valving.
- Removal and replacement of existing electrical controls and incorporating generator receptacle into new electrical control panels. The main lift station will have a future permanent generator installed as part of the large project.
- Salvage existing auto-dialer systems and for incorporating into new electrical control panel.
- Removal and replacement of existing pumps and guide rail systems.
- Replacement of the lift station at Drake Motel.
- Replacement of the force main leaving the Drake Motel lift station to Summit Ave.

It is our understanding the piping in the main lift station has been replaced.

Design Schedule

Based on the Scope of Services, this agreement will be from the proposal acceptance date through the completion of construction. Widseth proposes the following tentative design schedule:

Design	May 29, 2026
Construction Administration/Observation	Summer / Fall 2026

Scope of Services

Based on the Project Understanding outlined above, Widseth proposes the following Scope of Services:

Topographic Survey:

- The Widseth survey team will complete the topographic survey, together with the location of all visible utility appurtenances (and invert elevations for all utility structures as needed).
 - Utility locations will be shown on our topographic survey by utilizing current mapping records, and by surveying any visible utility structures, together with any field markings observed on site as coordinated through the Gopher One-Call utility locating system. Widseth will not expose or physically locate underground utilities and can make no guarantee that all utilities, whether in service or abandoned, will be located.

Civil Engineering Design:

Widseth will provide the following services as part of our Engineering Design:

- Complete a site visit with MN Pump Works and Mike Schwanke to review existing conditions and the proposed improvements.
- Preparation of a complete set of plans and specifications including incorporation of necessary documents / wage rates, etc. as may be required by Funding Agency.
- Preparation of necessary permitting, plan review documents.
- Prepare advertisement for bid and post advertisement in City's official newspaper and QuestCDN Website.
- Answer questions of contractors during the bidding phase and issue Addendums when required.
- Conduct bid opening, tabulate bids and provide recommendations to City Council.

Electrical Engineering Design:

Widseth will provide the following services as part of our Electrical Engineering Design:

- Complete a site visit with MN Pump Works and Mike Schwanke to review existing conditions and the proposed improvements.
- Preparation of a complete set of electrical plans and specifications, including, but not limited to:
 - Demolition of existing electrical components at the lift stations.
 - Sizing electrical service entrance at proposed lift stations.
 - Sizing feeders, overcurrent protection, disconnects, VFDs, etc. for lift station equipment.
 - Division 26 Electrical specifications.
 - Controls and Control Panel specifications.
 - West End (Oscar), Drake and Black Mallard Lift Stations will include provisions for connection to a portable generator.
 - Main Lift Station will include design for a permanent generator.
- Answer questions of contractors during the bidding phase and issue any addendums when required.

Construction Administration:

During Construction Widseth will provide the following services:

- Shop drawing review
- Preconstruction meeting with contractors, owner and utility companies.
- Construction staking (If necessary)
- Periodic site construction observations and site visits to assist with construction questions. We assume 16 site visits during construction for estimating purposes.
- Review contractor payment applications.
- Final Inspection including completion of punch list for contractor.
- Project Management
- Project Closeout / As-Built Drawings

Proposed Fees

Widseth proposes to complete the Design Services described above for a Total Lump Sum fee of \$48,000.00

Construction Administration/Observation Services to be provided on an Hourly Rate basis in accordance with the attached Fee Schedule. Construction Administration/Observation Fee estimated to be: \$40,000.00

Your signature below and return of this document will indicate your agreement with this Letter Proposal and attachments and shall constitute an Agreement between Widseth and City of Blackduck. If this proposal meets your approval, please sign and return a copy of the executed agreement to our office and we will schedule our work accordingly.

This proposal will remain valid for 30 days after the submission date.

If you have any questions or would like to discuss any items in more detail, please contact Tim Ramerth, PE at 218-316-3653 or by e-mail at tim.ramerth@widseth.com

Thank you for this opportunity to provide professional design and construction administration services. Widseth is eager to contribute our expertise, and we look forward to bringing the project to completion.

Sincerely,



Timothy T. Ramerth, P.E.
President

.....

Accepted by the City of Blackduck: The above proposal and attached General Provisions of Professional Services Agreement are satisfactory and Widseth is authorized to do the work as specified. Payment will be made monthly in accordance with the terms on the fee schedule.

General Provisions of Professional Services Agreement

These General Provisions are intended to be used in conjunction with a letter-type Agreement or a Request for Services between Widsseth Smith Nolting & Assoc., Inc., a Minnesota Corporation, hereinafter referred to as WIDSETH, and a CLIENT, wherein the CLIENT engages WIDSETH to provide certain Architectural, and/or Engineering services on a Project.

As used herein, the term "this Agreement" refers to (1) the WIDSETH Proposal Letter which becomes the Letter Agreement upon its acceptance by the Client, (2) these General Provisions and (3) any attached Exhibits, as if they were part of one and the same document. With respect to the order of precedence, any attached Exhibits shall govern over these General Provisions, and the Letter Agreement shall govern over any attached Exhibits and these General Provisions. These documents supersede all prior communications and constitute the entire Agreement between the parties. Amendments to this Agreement must be in writing and signed by both CLIENT and WIDSETH.

ARTICLE 1. PERIOD OF SERVICE

The term of this Agreement for the performance of services hereunder shall be as set forth in the Letter Agreement. In this regard, any lump sum or estimated maximum payment amounts set forth in the Letter Agreement have been established in anticipation of an orderly and continuous progress of the Project in accordance with the schedule set forth in the Letter Agreement or any Exhibits attached thereto. WIDSETH shall be entitled to an equitable adjustment to its fee should there be an interruption of services, or amendment to the schedule.

ARTICLE 2. SCOPE OF SERVICES

The scope of services covered by this Agreement shall be as set forth in the Letter Agreement or a Request for Services. Such scope of services shall be adequately described in order that both the CLIENT and WIDSETH have an understanding of the expected work to be performed.

If WIDSETH is of the opinion that any work they have been directed to perform is beyond the Scope of this Agreement, or that the level of effort required significantly exceeds that estimated due to changed conditions and thereby constitutes extra work, they shall notify the CLIENT of that fact. Extra work, additional compensation for same, and extension of time for completion shall be covered by a revision to the Letter Agreement or Request for Services and entered into by both parties.

ARTICLE 3. COMPENSATION TO WIDSETH

A. Compensation to WIDSETH for services described in this Agreement shall be on a Lump Sum basis, Percentage of Construction, and/or Hourly Rate basis as designated in the Letter Agreement and as hereinafter described.

1. A Lump Sum method of payment for WIDSETH's services shall apply to all or parts of a work scope where WIDSETH's tasks can be readily defined and/or where the level of effort required to accomplish such tasks can be estimated with a reasonable degree of accuracy. The CLIENT shall make monthly payments to WIDSETH within 30 days of date of invoice based on an estimated percentage of completion of WIDSETH's services.
2. A Percentage of Construction or an Hourly Rate method of payment of WIDSETH's services shall apply to all or parts of a work scope where WIDSETH's tasks cannot be readily defined and/or where the level of effort required to accomplish such tasks cannot be estimated with any reasonable degree of accuracy. Under an Hourly Rate method of payment, WIDSETH shall be paid for the actual hours worked on the Project by WIDSETH technical personnel times an hourly billing rate established for each employee. Hourly billing rates shall include compensation for all salary costs, payroll burden, general, and administrative overhead and professional fee. In a Percentage of Construction method of payment, final compensation will be based on actual bids if the project is bid and WIDSETH's estimate to the CLIENT if the project is not bid. A rate schedule shall be furnished by WIDSETH to CLIENT upon which to base periodic payments to WIDSETH.
3. In addition to the foregoing, WIDSETH shall be reimbursed for items and services as set forth in the Letter Agreement or Fee Schedule and the following Direct Expenses when incurred in the performance of the work:
 - (a) Travel and subsistence.
 - (b) Specialized computer services or programs.
 - (c) Outside professional and technical services with cost defined as the amount billed WIDSETH.
 - (d) Identifiable reproduction and reprographic costs.
 - (e) Other expenses for items such as permit application fees, license fees, or other additional items and services whether or not specifically identified in the Letter Agreement or Fee Schedule.
4. The CLIENT shall make monthly payments to WIDSETH within 30 days of date of invoice based on computations made in accordance with the above charges for services provided and expenses incurred to date, accompanied by supporting evidence as available.

B. The CLIENT will pay the balance stated on the invoice unless CLIENT notifies WIDSETH in writing of the particular item that is alleged to be incorrect within 15 days from the date of invoice, in which case, only the disputed item will remain undue until resolved by the parties. All accounts unpaid after 30 days from the date of original invoice shall be subject to a service charge of 1 % per month, or the maximum amount authorized by law, whichever is less. WIDSETH shall be entitled to recover all reasonable costs and disbursements, including reasonable attorneys fees, incurred in connection with collecting amount owed by CLIENT. In addition, WIDSETH may, after giving seven days written notice to the CLIENT, suspend services and withhold deliverables under this Agreement until WIDSETH has been paid in full for all amounts then due for services, expenses and charges. CLIENT agrees that WIDSETH shall not be responsible for any claim for delay or other consequential damages arising from suspension of services hereunder. Upon payment in full by Client and WIDSETH's resumption of services, the time for performance of WIDSETH's services shall be equitably adjusted to account for the period of suspension and other reasonable time necessary to resume performance.

ARTICLE 4. ABANDONMENT, CHANGE OF PLAN AND TERMINATION

Either Party has the right to terminate this Agreement upon seven days written notice. In addition, the CLIENT may at any time, reduce the scope of this Agreement. Such reduction in scope shall be set forth in a written notice from the CLIENT to WIDSETH. In the event of unresolved dispute over change in scope or changed conditions, this Agreement may also be terminated upon seven days written notice as provided above.

In the event of termination, and upon payment in full for all work performed and expenses incurred to the date of termination, documents that are identified as deliverables under the Letter Agreement whether finished or unfinished shall be made available by WIDSETH to the CLIENT pursuant to Article 5, and there shall be no further payment obligation of the CLIENT to WIDSETH under this Agreement except for payment of an amount for WIDSETH's anticipated profit on the value of the services not performed by WIDSETH and computed in accordance with the provisions of Article 3 and the Letter Agreement.

In the event of a reduction in scope of the Project work, WIDSETH shall be paid for the work performed and expenses incurred on the Project work thus reduced and for any completed and abandoned work, for which payment has not been made, computed in accordance with the provisions of Article 3 and the Letter Agreement.

ARTICLE 5. DISPOSITION OF PLANS, REPORTS AND OTHER DATA

All reports, plans, specifications, field data and notes and other documents, including all documents on electronic media, prepared by WIDSETH or its consultants are Instruments of Service and shall remain the property of WIDSETH or its consultants, respectively. WIDSETH and its subconsultants retain all common law, statutory and other reserved rights, including, without limitation, copyright. WIDSETH and its subconsultants maintain the right to determine if production will be made, and allowable format for production, of any electronic media or data to CLIENT or any third-party. Upon payment in full of monies due pursuant to the Agreement, WIDSETH shall make hard copies available to the CLIENT, of all documents that are identified as deliverables under the Letter Agreement. If the documents have not been finished (including, but not limited to, completion of final quality control), then WIDSETH shall have no liability for any claims expenses or damages that may arise out of items that could have been corrected during completion/quality control. Any Instruments of Service provided are not intended or represented to be suitable for reuse by the CLIENT or others on extensions of the Project or any other project. Any modification or reuse without written verification or adaptation by WIDSETH for the specific purpose intended will be at CLIENT's sole risk and without liability or legal exposure to WIDSETH. CLIENT shall indemnify, defend and hold harmless WIDSETH from any and all suits or claims of third parties arising out of use of unfinished documents, or modification or reuse of finished documents, which is not specifically verified, adapted, or authorized in writing by WIDSETH. This indemnity shall survive the termination of this Agreement.

Should WIDSETH choose to deliver to CLIENT documents in electronic form, CLIENT acknowledges that differences may exist between any electronic files delivered and the printed hard-copy. Copies of documents that may be relied upon by CLIENT are limited to the printed hard-copies that are signed and/or sealed by WIDSETH. Files in electronic form are only for convenience of CLIENT. Any conclusion or information obtained or derived from such electronic documents will be at user's sole risk. CLIENT acknowledges that the useful life of some forms of electronic media may be limited because of deterioration of the media or obsolescence of the computer hardware and/or software systems. Therefore, WIDSETH makes no representation that such media will be fully usable beyond 30 days from date of delivery to CLIENT.

ARTICLE 6. CLIENT'S ACCEPTANCE BY PURCHASE ORDER OR OTHER MEANS

In lieu of or in addition to signing the acceptance blank on the Letter Agreement, the CLIENT may accept this Agreement by permitting WIDSETH to commence work on the project or by issuing a purchase order signed by a duly authorized representative. Such purchase order shall incorporate by reference the terms and conditions of this Agreement. In the event of a conflict between the terms and conditions of this Agreement and those contained in the CLIENT's purchase order, the terms and conditions of this Agreement shall govern. Notwithstanding any purchase order provisions to the contrary, no warranties, express or implied, are made by WIDSETH.

WIDSETH

ARCHITECTS ■ ENGINEERS
SCIENTISTS ■ SURVEYORS

ARTICLE 7. CLIENT'S RESPONSIBILITIES

A. To permit WIDSETH to perform the services required hereunder, the CLIENT shall supply, in proper time and sequence, the following at no expense to WIDSETH:

1. Provide all program, budget, or other necessary information regarding its requirements as necessary for orderly progress of the work.
2. Designate in writing, a person to act as CLIENT's representative with respect to the services to be rendered under this Agreement. Such person shall have authority to transmit instructions, receive instructions, receive information, interpret and define CLIENT's policies with respect to WIDSETH's services.
3. Furnish, as required for performance of WIDSETH's services (except to the extent provided otherwise in the Letter Agreement or any Exhibits attached hereto), data prepared by or services of others, including without limitation, core borings, probes and subsurface explorations, hydrographic and geohydrologic surveys, laboratory tests and inspections of samples, materials and equipment; appropriate professional interpretations of all of the foregoing; environmental assessment and impact statements; property, boundary easement, right-of-way, topographic and utility surveys; property descriptions; zoning, deed and other land use restriction; and other special data not covered in the Letter Agreement or any Exhibits attached hereto.
4. Provide access to, and make all provisions for WIDSETH to enter upon publicly or privately owned property as required to perform the work.
5. Act as liaison with other agencies or involved parties to carry out necessary coordination and negotiations; furnish approvals and permits from all governmental authorities having jurisdiction over the Project and such approvals and consents from others as may be necessary for completion of the Project.
6. Examine all reports, sketches, drawings, specifications and other documents prepared and presented by WIDSETH, obtain advice of an attorney, insurance counselor or others as CLIENT deems necessary for such examination and render in writing, decisions pertaining thereto within a reasonable time so as not to delay the services of WIDSETH.
7. Give prompt written notice to WIDSETH whenever CLIENT observes or otherwise becomes aware of any development that affects the scope of timing of WIDSETH's services or any defect in the work of Construction Contractor(s), Consultants or WIDSETH.
8. Initiate action, where appropriate, to identify and investigate the nature and extent of asbestos and/or pollution in the Project and to abate and/or remove the same as may be required by federal, state or local statute, ordinance, code, rule, or regulation now existing or hereinafter enacted or amended. For purposes of this Agreement, "pollution" and "pollutant" shall mean any solid, liquid, gaseous or thermal irritant or contaminant, including smoke, vapor, soot, alkalis, chemicals and hazardous or toxic waste. Hazardous or toxic waste means any substance, waste pollutant or contaminant now or hereafter included within such terms under any federal, state or local statute, ordinance, code, rule or regulation now existing or hereinafter enacted or amended. Waste further includes materials to be recycled, reconditioned or reclaimed.

If WIDSETH encounters, or reasonably suspects that it has encountered, asbestos or pollution in the Project, WIDSETH shall cease activity on the Project and promptly notify the CLIENT, who shall proceed as set forth above. Unless otherwise specifically provided in the Letter Agreement, the services to be provided by WIDSETH do not include identification of asbestos or pollution, and WIDSETH has no duty to identify or attempt to identify the same within the area of the Project.

With respect to the foregoing, CLIENT acknowledges and agrees that WIDSETH is not a user, handler, generator, operator, treater, storer, transporter or disposer of asbestos or pollution which may be encountered by WIDSETH on the Project. It is further understood and agreed that services WIDSETH will undertake for CLIENT may be uninsurable obligations involving the presence or potential presence of asbestos or pollution. Therefore, CLIENT agrees, except (1) such liability as may arise out of WIDSETH's sole negligence in the performance of services under this Agreement or (2) to the extent of insurance coverage available for the claim, to hold harmless, indemnify and defend WIDSETH and WIDSETH's officers, subcontractor(s), employees and agents from and against any and all claims, lawsuits, damages, liability and costs, including, but not limited to, costs of defense, arising out of or in any way connected with the presence, discharge, release, or escape of asbestos or pollution. This indemnification is intended to apply only to existing conditions and not to conditions caused or created by WIDSETH. This indemnification shall survive the termination of this Agreement.

9. Provide such accounting, independent cost estimating and insurance counseling services as may be required for the Project, such legal services as CLIENT may require or WIDSETH may reasonably request with regard to legal issues pertaining to the Project including any that may be raised by Contractor(s), such auditing service as CLIENT may require to ascertain how or for what purpose any Contractor has used the moneys paid under the construction contract, and such inspection services as CLIENT may require to ascertain that Contractor(s) are complying with any law, rule, regulation, ordinance, code or order applicable to their furnishing and performing the work.

10. Provide "record" drawings and specifications for all existing physical features, structures, equipment, utilities, or facilities which are pertinent to the Project, to the extent available.
11. Provide other services, materials, or data as may be set forth in the Letter Agreement or any Exhibits attached hereto.

B. WIDSETH may use any CLIENT provided information in performing its services. WIDSETH shall be entitled to rely on the accuracy and completeness of information furnished by the CLIENT. If WIDSETH finds that any information furnished by the CLIENT is in error or is inadequate for its purpose, WIDSETH shall endeavor to notify the CLIENT. However, WIDSETH shall not be held responsible for any errors or omissions that may arise as a result of erroneous or incomplete information provided by CLIENT.

ARTICLE 8. OPINIONS OF COST

Opinions of probable project cost, construction cost, financial evaluations, feasibility studies, economic analyses of alternate solutions and utilitarian considerations of operations and maintenance costs provided for in the Letter Agreement or any Exhibits attached hereto are to be made on the basis of WIDSETH's experience and qualifications and represent WIDSETH's judgment as an experienced design professional. It is recognized, however, that WIDSETH does not have control over the cost of labor, material, equipment or services furnished by others or over market conditions or contractors' methods of determining their prices, and that any evaluation of any facility to be constructed, or acquired, or work to be performed on the basis of WIDSETH's cost opinions must, of necessity, be speculative until completion of construction or acquisition. Accordingly, WIDSETH does not guarantee that proposals, bids or actual costs will not substantially vary from opinions, evaluations or studies submitted by WIDSETH to CLIENT hereunder.

ARTICLE 9. CONSTRUCTION PHASE SERVICES

CLIENT acknowledges that it is customary for the architect or engineer who is responsible for the preparation and furnishing of Drawings and Specifications and other construction-related documents to be employed to provide professional services during the Bidding and Construction Phases of the Project, (1) to interpret and clarify the documentation so furnished and to modify the same as circumstances revealed during bidding and construction may dictate, (2) in connection with acceptance of substitute or equal items of materials and equipment proposed by bidders and Contractor(s), (3) in connection with approval of shop drawings and sample submittals, and (4) as a result of and in response to WIDSETH's detecting in advance of performance of affected work inconsistencies or irregularities in such documentation. CLIENT agrees that if WIDSETH is not employed to provide such professional services during the Bidding (if the work is put out for bids) and the Construction Phases of the Project, WIDSETH will not be responsible for, and CLIENT shall indemnify and hold WIDSETH, its officers, consultant(s), subcontractor(s), employees and agents harmless from, all claims, damages, losses and expenses including attorneys' fees arising out of, or resulting from, any interpretation, clarification, substitution acceptance, shop drawing or sample approval or modification of such documentation issued or carried out by CLIENT or others. Nothing contained in this paragraph shall be construed to release WIDSETH, its officers, consultant(s), subcontractor(s), employees and agents from liability for failure to perform in accordance with professional standards any duty or responsibility which WIDSETH has undertaken or assumed under this Agreement.

ARTICLE 10. REVIEW OF SHOP DRAWINGS AND SUBMITTALS

WIDSETH may review and approve or take other appropriate action on the contractor's submittals or shop drawings for the limited purpose of checking for general conformance with information given and design concept expressed in the Contract Documents. Review and/or approval of submittals is not conducted for the purpose of determining accuracy and completeness of other details or for substantiating instructions for installation or performance of equipment or systems, all of which remain the exclusive responsibility of the contractor. WIDSETH's review and/or approval shall not constitute approval of safety precautions, or any construction means, methods, techniques, sequences or procedures. WIDSETH's approval of a specific item shall not indicate approval of an assembly of which the item is a component. WIDSETH's review and/or approval shall not relieve contractor for any deviations from the requirements of the contract documents nor from the responsibility for errors or omissions on items such as sizes, dimensions, quantities, colors, or locations. Contractor shall remain solely responsible for compliance with any manufacturer requirements and recommendations.

ARTICLE 11. REVIEW OF PAY APPLICATIONS

If included in the scope of services, any review or certification of any pay applications, or certificates of completion shall be based upon WIDSETH's observation of the Work and on the data comprising the contractor's application for payment, and shall indicate that to the best of WIDSETH's knowledge, information and belief, the quantity and quality of the Work is in general conformance with the Contract Documents. The issuance of a certificate for payment or substantial completion is not a representation that WIDSETH has made exhaustive or continuous inspections, reviewed construction means and methods, verified any back-up data provided by the contractor, or ascertained how or for what purpose the contractor has used money previously paid by CLIENT.

ARTICLE 12. REQUESTS FOR INFORMATION (RFI)

If included in the scope of services, WIDSETH will provide, with reasonable promptness, written responses to requests from any contractor for clarification, interpretation or information on the requirements of the Contract Documents. If Contractor's RFI's are, in WIDSETH's professional opinion, for information readily apparent from reasonable observation of field conditions or review of the Contract Documents, or are reasonably inferable therefrom, WIDSETH shall be entitled to compensation for Additional Services for WIDSETH's time in responding to such requests. CLIENT may wish to make the Contractor responsible to the CLIENT for all such charges for additional services as described in this article.

ARTICLE 13. CONSTRUCTION OBSERVATION

If included in the scope of services, WIDSETH will make site visits as specified in the scope of services in order to observe the progress of the Work completed. Such site visits and observations are not intended to be an exhaustive check or detailed inspection, but rather are to allow WIDSETH to become generally familiar with the Work. WIDSETH shall keep CLIENT informed about the progress of the Work and shall advise the CLIENT about observed deficiencies in the Work. WIDSETH shall not supervise, direct or have control over any Contractor's work, nor have any responsibility for the construction means, methods, techniques, sequences or procedures selected by the Contractor nor for the Contractor's safety precautions or programs in connection with the Work. These rights and responsibilities are solely those of the Contractor. WIDSETH shall not be responsible for any acts or omissions of any Contractor and shall not be responsible for any Contractor's failure to perform the Work in accordance with the Contract Documents or any applicable laws, codes, regulations, or industry standards.

If construction observation services are not included in the scope of services, CLIENT assumes all responsibility for interpretation of the Contract Documents and for construction observation, and the CLIENT waives any claims against WIDSETH that are connected with the performance of such services.

ARTICLE 14. BETTERMENT

If, due to WIDSETH's negligence, a required item or component of the Project is omitted from the construction documents, WIDSETH shall not be responsible for paying the cost required to add such item or component to the extent that such item or component would have been required and included in the original construction documents. In no event, will WIDSETH be responsible for any cost or expense that provides betterment or upgrades or enhances the value of the Project.

ARTICLE 15. CERTIFICATIONS, GUARANTEES AND WARRANTIES

WIDSETH shall not be required to sign any documents, no matter by who requested, that would result in WIDSETH having to certify, guarantee or warrant the existence of conditions whose existence WIDSETH cannot ascertain. CLIENT agrees not to make resolution of any dispute with WIDSETH or payment of any amount due to WIDSETH in any way contingent upon WIDSETH signing such certification.

ARTICLE 16. CONTINGENCY FUND

CLIENT and WIDSETH agree that certain increased costs and changes may be required because of possible omissions, ambiguities or inconsistencies in the plans and specifications prepared by WIDSETH, and therefore, that the final construction cost of the Project may exceed the bids, contract amount or estimated construction cost. CLIENT agrees to set aside a reserve in the amount of 5% of the Project construct costs as a contingency to be used, as required, to pay for any such increased costs and changes. CLIENT further agrees to make no claim by way of direct or third-party action against WIDSETH with respect to any increased costs within the contingency because of such changes or because of any claims made by any Contractor relating to such changes.

ARTICLE 17. INSURANCE

WIDSETH shall procure and maintain insurance for protection from claims against it under workers' compensation acts, claims for damages because of bodily injury including personal injury, sickness or disease or death of any and all employees or of any person other than such employees, and from claims against it for damages because of injury to or destruction of property including loss of use resulting therefrom.

Also, WIDSETH shall procure and maintain professional liability insurance for protection from claims arising out of performance of professional services caused by any negligent act, error, or omission for which WIDSETH is legally liable.

Certificates of insurance will be provided to the CLIENT upon request.

ARTICLE 18. ASSIGNMENT

Neither Party to this Agreement shall transfer, sublet or assign any rights or duties under or interest in this Agreement, including but not limited to monies that are due or monies that may be due, without the prior written consent of the other party. Subcontracting to subconsultants, normally contemplated by WIDSETH as a generally accepted business practice, shall not be considered an assignment for purposes of this Agreement.

ARTICLE 19. NO THIRD-PARTY BENEFICIARIES

Nothing contained in this Agreement shall create a contractual relationship or a cause of action by a third-party against either WIDSETH or CLIENT. WIDSETH's services pursuant to this Agreement are being performed solely for the CLIENT's benefit, and no other party or entity shall have any claim against WIDSETH because of this Agreement.

ARTICLE 20. CORPORATE PROTECTION

It is intended by the parties to this Agreement that WIDSETH's services in connection with the Project shall not subject WIDSETH's individual employees, officers or directors to any personal legal exposure for the risks associated with this Project. Therefore, and notwithstanding anything to the contrary, CLIENT agrees that as the CLIENT's sole and exclusive remedy, any claim, demand or suit shall be directed and/or asserted only against WIDSETH, a Minnesota corporation, and not against any of WIDSETH's individual employees, officers or directors.

ARTICLE 21. CONTROLLING LAW

This Agreement is to be governed by the laws of the State of Minnesota.

ARTICLE 22. ASSIGNMENT OF RISK

In recognition of the relative risks and benefits of the project to both the CLIENT and WIDSETH, the risks have been allocated such that the CLIENT agrees, to the fullest extent permitted by law, to limit the liability of WIDSETH, employees of WIDSETH and sub-consultants, to the CLIENT and to all construction contractors, subcontractors, agents and assigns on the project for any and all claims, losses, costs, damages of any nature whatsoever or claims expenses from any cause or causes, so that total aggregate liability of WIDSETH, employees of WIDSETH and sub-consultants, to all those named shall not exceed WIDSETH's total fee received for services rendered on this project. Such claims and causes include, but are not limited to negligence, professional errors or omissions, strict liability, breach of contract or warranty.

ARTICLE 23. NON-DISCRIMINATION

WIDSETH will comply with the provisions of applicable federal, state and local statutes, ordinances and regulations pertaining to human rights and non-discrimination.

ARTICLE 24. SEVERABILITY

Any provision or portion thereof in this Agreement which is held to be void or unenforceable under any law shall be deemed stricken and all remaining provisions shall continue to be valid and binding between CLIENT and WIDSETH. All limits of liability and indemnities contained in the Agreement shall survive the completion or termination of the Agreement.

ARTICLE 25. PRE-LIEN NOTICE

PURSUANT TO THE AGREEMENT WIDSETH WILL BE PERFORMING SERVICES IN CONNECTION WITH IMPROVEMENTS OF REAL PROPERTY AND MAY CONTRACT WITH SUBCONSULTANTS OR SUBCONTRACTORS AS APPROPRIATE TO FURNISH LABOR, SKILL AND/OR MATERIALS IN THE PERFORMANCE OF THE WORK. ACCORDINGLY, CLIENT IS ENTITLED UNDER MINNESOTA LAW TO THE FOLLOWING NOTICE:

- (a) ANY PERSON OR COMPANY SUPPLYING LABOR OR MATERIALS FOR THIS IMPROVEMENT TO YOUR PROPERTY MAY FILE A LIEN AGAINST YOUR PROPERTY IF THAT PERSON OR COMPANY IS NOT PAID FOR ITS CONTRIBUTIONS.**
- (b) UNDER MINNESOTA LAW, YOU HAVE THE RIGHT TO PAY PERSONS WHO SUPPLIED LABOR OR MATERIALS FOR THIS IMPROVEMENT DIRECTLY AND DEDUCT THIS AMOUNT FROM OUR CONTRACT PRICE, OR WITHHOLD THE AMOUNTS DUE FROM US UNTIL 120 DAYS AFTER COMPLETION OF THE IMPROVEMENT UNLESS WE GIVE YOU A LIEN WAIVER SIGNED BY PERSONS WHO SUPPLIED ANY LABOR OR MATERIALS FOR THE IMPROVEMENT AND WHO GAVE YOU TIMELY NOTICE.**

2026 FEE SCHEDULE

CLASSIFICATION	RATE
Engineer/Architect/Surveyor/Scientist/Wetland Specialist/Geographer/Project Manager	
Level I	\$145 / Hour
Level II	\$170 / Hour
Level III	\$200 / Hour
Level IV	\$205 / Hour
Level V	\$215 / Hour
Technician	
Level I	\$105 / Hour
Level II	\$125 / Hour
Level III	\$145 / Hour
Level IV	\$160 / Hour
Level V	\$175 / Hour
Computer Systems Specialist	\$180 / Hour
Senior Funding Specialist	\$150 / Hour
Marketing Specialist	\$125 / Hour
Funding Specialist	\$125 / Hour
Administrative Assistant	\$ 90 / Hour

OTHER EXPENSES	RATE
Mileage (Federal Standard Rate) <i>subject to IRS Guidelines</i>	Cost
Meals/Lodging	Cost
Stakes & Expendable Materials	Cost
ATV 4-Wheeler Rental	\$100 / Day
ATV Side by Side Rental	\$200 / Day
Waste Water Sampler	\$40 / Day
ISCO Flow Recorder	\$60 / Day
Photoionization Detection Meter	\$100 / Day
Explosimeter	\$50 / Day
Product Recovery Equipment	\$35 / Day
Survey-Grade GPS (Global Positioning System)	\$75 / Hour
Mapping GPS (Global Positioning System)	\$150 / Day
Lath & Hubs	\$150 / Day
Soil Drilling Rig	\$35 / Hour
Groundwater Sampling Equipment	\$125 / Day
Hydrographic Survey System	\$500 / Day
Subcontractors	Cost plus 10%

REPRODUCTION COSTS	
Black & White Copies: 8-1/2" x 11"	\$0.10 Each
Black & White Copies: 11" x 17"	\$0.50 Each
Black & White Copies: 24" x 36"	\$3 Each
Color Copies: 8-1/2" x 11"	\$2 Each
Color Copies: 11" x 17"	\$4 Each
Color Copies: 24" x 36"	\$12 Each
Color Plots: 42" x 48"	\$22 Each

These rates are effective for only the year indicated and are subject to yearly adjustments which reflect equitable changes in the various components.



72 x 48 outside can
67 x 43 pan face



2025-2026 Blackduck Public Library Revenue and Expenses

updated 3/12/2026

Date	Description of Expense/Revenue	Revenue	Expense	Balance
Apr-25	KRLS Project Funding	\$57,583.00		\$57,583.00
Jul-25	GHI - first half		\$29,000.00	\$28,583.00
Sep-25	GHI - 25% of last half		\$14,500.00	\$14,083.00
Oct-25	Bessler Electric - update lighting		\$6,975.00	\$7,108.00
Aug-25	LOST	\$385.87		\$7,493.87
Sep-25	LOST July 2025	\$9,557.87		\$17,051.74
Oct-25	LOST - August 2025	\$10,952.38		\$28,004.12
Nov-25	LOST - September 2025	\$9,850.76		\$37,854.88
Nov-25	VARI- circulation desk order		\$546.82	\$37,308.06
Nov-25	Pinnacle - commitment new logo - Invoice #89906		\$1,100.00	\$36,208.06
Nov-25	Clarity Glass - door quote w/ADA - <i>approved by council</i>		\$11,412.00	\$24,796.06
Nov-25	2025 Front Door Levy Funds	\$7,000.00		\$31,796.06
Sep-25	DOE Grant reimbursement #1	\$21,475.00		\$53,271.06
	estimated Balance of LOST to receive	\$20,409.67		\$73,680.73
	Budget for New Signage		\$2,000.00	\$71,680.73
	Budget for New Exterior Book Return		\$5,000.00	\$66,680.73
	Budget for New patio & landscaping		\$10,000.00	\$56,680.73
12/2/2025	Amazon - TV Cart for MP Room		\$239.19	\$56,441.54
12/3/2025	The Library Store - Quote #945042 - Invoice 945042 pd		\$8,864.54	\$47,577.00
12/10/2025	Amazon - DVD shelving, bathroom cabinet, chairmats		\$416.44	\$47,160.56
12/10/2025	LOST - October 2025	\$8,410.95		\$55,571.51
1/23/2026	Friends of the Library Donation (Shelving offset)	\$18,782.34		\$74,353.85
12/29/2025	DOE Grant Reimbursement #2 - TV cart, #945042, vari	\$7,829.56		\$82,183.41
1/2/2026	Balance of GHI contract Check#15441		\$14,500.00	\$67,683.41
1/5/2026	Northwoods Lumber - building supplies misc.		\$234.66	\$67,448.75
1/12/2026	LOST - November 2025	\$8,190.01		\$75,638.76
1/13/2026	Grainger - baby changing table & mirror bathroom		\$654.18	\$74,984.58
1/26/2026	GHI - Library additions (remaining flooring, counters, cabinets)		\$15,059.75	\$59,924.83
2/10/2026	The Library Store - Quote #944032 - pd 30% down 2/10/26		\$18,866.23	\$41,058.60
2/10/2026	LOST - December 2025	\$7,931.58		\$48,990.18
2/10/2026	Balance due for Shelving - The Library Store		\$44,021.21	\$4,968.97
3/3/2026	DOE Grant Reimbursement #3 - GHI & Grainger see side Q1	\$30,213.93		\$35,182.90
3/12/2026	LOST - January 2026	\$9,795.35		\$44,978.25
3/10/2026	Bessler Electric - wire new ADA opener on new door		\$896.51	\$44,081.74

CPF Compliance Q4 Totals	Amounts	Difference
Current Period	\$58,788.66	\$25,912.01
Current Period Expenditures	\$32,876.65	
Cumulative Obligation	\$58,788.65	
Cumulative Expenditures	\$47,376.65	\$11,412.00

LOST Receipts to Date	Amounts	Difference
	\$85,000.00	
\$9,557.87	Jul-25	
\$10,853.81	Aug-25	
\$9,850.76	Sep-25	
\$8,410.95	Oct-25	
\$8,190.01	Nov-25	
\$7,931.58	Dec-25	
\$9,795.35	Jan-26	
\$64,590.33		\$20,409.67 est. balance to receive

DOE Reimbursement Request Q1 2026

GHI	\$14,500.00	ck#15441
GHI	\$15,059.75	ck#15555
Grainger	\$654.18	ck#15612
	\$30,213.93	

DOE Reimbursement Request Q2 2026

Bessler Electric	\$896.51
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**Beltrami Electric
Cooperative Inc.**

Your Touchstone Energy® Cooperative

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www.beltramielectric.com

QUOTE: 17246

Order Date: 03/18/2026
Terms: OA STMT TERM
Expire Date: 04/17/2026

CITY OF BLACKDUCK
PO BOX 380
BLACKDUCK MN 56630-0380

Account: 4001

Page 1 of 1

Description: CONSTRUCTION CHARGES

Instructions: PLEASE SEND A COPY WITH YOUR PAYMENT AND REFERENCE YOUR ACCOUNT NUMBER ON YOUR CHECK.

SERVICE ORDER #:202602926
WINTER CHARGE: \$6,000

WORK ORDER #:22072

LOCATION #:043-12-200

CATALOG ITEM	DESCRIPTION	QUANTITY	UOM	UNIT PRICE	AMOUNT	TAX
	SERVICE IMPROVEMENT BASE CONTRIBUTION	1.000	EA	1,050.0000	1,050.00	
	SINGLE-PHASE CONSTRUCTION FOOTAGE	10.000	FT	10.0000	100.00	
	SINGLE-PHASE SECONDARY WIRE	265.000	FT	10.0000	2,650.00	

MESSAGES

SEND A COPY AND REFERENCE ACCOUNT WITH YOUR PAYMENT.

CONSTRUCTION CHARGES MUST BE PAID IN FULL PRIOR TO CONSTRUCTION SCHEDULING.

QUOTES ARE VALID FOR THE CURRENT CONSTRUCTION SEASON ONLY.

Additional construction charge of \$8.00/ft (\$500 minimum) will be applied between NOVEMBER 1st and MAY 1st.

TOTAL ORDER AMOUNT:

\$ 3,800.00



Phone: 218-444-9473 Fax: 218-444-9985
Email: info@wieboltelectric.com or info@besslerelectric.com

3-19-26

Attn: Christina R.

Blackduck City Hall
8 Summit Ave NW
Blackduck, MN 56630

218-835-4810
christina.regas@blackduckmn.com

Quote proposal for electrical work. Prices include labor and materials for the items listed.

Option A (recommended)

Relocate existing service meters and feeders for Beltrami Electric re-feeding building. Delete existing meter and feed point to service in basement. Replace fuse panel with breaker panel. (highly recommended)

- 200amp metered service panel on the Northwest exterior corner.
- Re-feed from new meter location with conduit through basement to service panel location
- Upgrade existing fuse panel to 200amp 40 space breaker panel
- Delete existing off-peak service and controls for electric boiler.
- All required electrical connections
- State and local inspection fees

\$5,081.51

Option B

Relocate existing service meters and feeders for Beltrami Electric re-feeding building. Delete existing meter and feed point to service in basement. Re-feed existing fuse panel.

- 200amp metered service panel on the Northwest exterior corner.
- Re-feed from new meter location with conduit through basement to service panel location
- Delete existing off-peak service and controls for electric boiler
- All required electrical connections
- State and local inspection fees

\$4,076.12

Additional new off-peak service near regular (new) service.

- 200amp metered service panel for off-peak
- Refeed boiler in basement from new off peak service panel.
- Off-peak wiring and controls for boiler
- All required electrical connections.
- State and local inspection fees

\$2,268.94

Work to be scheduled and coordinated with Beltrami Electric. Prices do not include any fees or costs from Beltrami Electric. Bessler Electric will coordinate any required electrical inspections.



A GREAT PLACE FOR FAMILIES

8 Summit Ave. NE, PO Box 380, Blackduck, MN 56630-0380

**PUBLIC HEARING NOTICE
WASTEWATER SYSTEM IMPROVEMENTS
CITY OF BLACKDUCK**

The City of Blackduck has scheduled a public hearing for 6:00 PM on Monday, April 20, 2026. The hearing will be held at the Blackduck City Hall, 8 Summit Ave. E. Blackduck, MN. The City of Blackduck has prepared a Facility Plan which recommends improvements to the wastewater treatment system. The scope of the proposed improvements outlined in the facility plan will be presented at this hearing along with estimated costs, funding options and potential impact on wastewater rates.

The hearing will provide an opportunity for all parties to comment on the proposed plan. Written comments may be presented at the hearing or mailed to Christina Regas, City Administrator, City of Blackduck, PO Box 380, Blackduck, MN 56630. Interested parties may review the Facilities Plan at the City office during regular business hours.

Christina Regas, City Administrator

www.blackduckmn.com

Phone: (218) 835-4803 Fax: (218) 835-4801 Email: city@paulbunyan.net

"The City Of Blackduck Is An Equal Opportunity Provider"

FACILITY PLAN

FOR

MUNICIPAL WATER AND
WASTEWATER SYSTEMS

CITY OF BLACKDUCK

March 2026

Prepared By:

Widseth Smith Nolting & Associates, Inc.
Baxter, MN

WSN Project No. 2020-10247

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FACILITY PLAN
FOR
MUNICIPAL WATER AND WASTEWATER SYSTEMS
CITY OF BLACKDUCK

March 2026

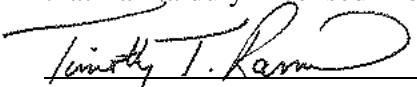
Prepared By:

Widseth Smith Nolting & Associates, Inc.
7804 Industrial Park Road
Baxter, Minnesota 56425

WSN Project No. 2020-10247

Certification:

I hereby certify that this report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.



Timothy T. Ramerth, P.E.

March 6, 2026

Date

41966

License No.

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Sanitary Sewer Monitoring Data

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1.0 Project Planning

1.1 Location

The City of Blackduck is a rural community located in Beltrami County in Northern Minnesota along TH 71 and TH 72 as shown in Figure 1-1. The proposed project planning area for this Facility Plan (FP) is defined by the city limits, stabilization pond system, and land application site. The city limits cover a total area of approximately 1.71 square miles. Much of this area is developed and served by municipal utilities. The remaining area within the city limits is undeveloped land. A location map of the city, including the proposed project planning area and municipal utility service area, is included in Appendix A, Exhibit 1.

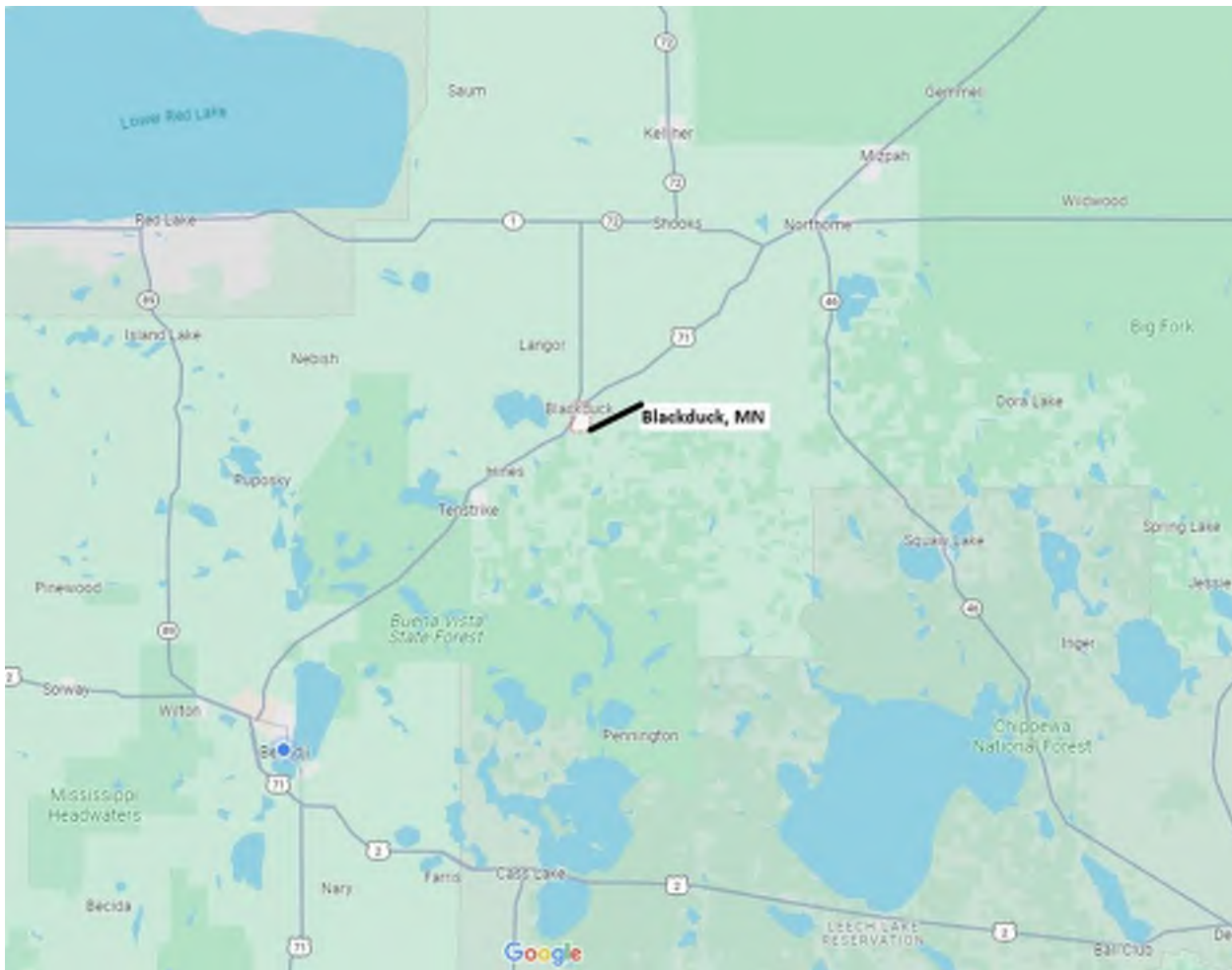


Figure 1-1 – Project Location

1.2 Environmental Resources Present

It is anticipated the disturbance associated with the improvements proposed by this FP will be confined to previously disturbed right-of-way and City property. Confining disturbance to pre-disturbed right-of-way and City property minimizes impacts to environmental resources. The design of the proposed project is not anticipated to impact or be impacted by any environmental resources in the proposed project planning area since the disturbance will be confined to previously disturbed land. The Environmental Information Worksheet (under separate cover) for the proposed project contains a comprehensive evaluation of the potential impacts the proposed project and project alternatives may have on the environmental features of the area.

1.3 Population Trends

Table 1-2 represents past and projected population data for the City of Blackduck from the US Census.

Table 1-2 – Blackduck Population Data

Year	Population
1960	765
1970	595
1980	653
1990	718
2000	696
2010	785
2020	845

Data Source: US Census

Table 1-3 represents the projected population data for Beltrami County from the Minnesota State Demographic Center.

Table 1-3 – Beltrami County Projected Population Data

Year	Population
2010	44,442
2015	45,605
2020	47,641
2025	48,117
2030	48,599
2035	49,085
2040	49,575
2045	50,071
2050	50,572

Data Source: Minnesota State Demographic Center

This data shows that the population of the City of Blackduck has a moderate increase over the past 10 years and that the population of Beltrami County is anticipated to moderately increase over the next 30 years.

Since the typical term of the loan(s) that will be necessary for the city to complete the proposed improvements identified by this FP is 30 or 40 years, the planning period for the proposed project has been set for 40 years. Projecting future population trends over 40 years is difficult for rural communities because a relatively minor population shift such as a new industry in the area can have a significant impact on the overall population of the community. This growth potential will be considered during design of the proposed project.

1.4 Community Engagement

The City has engaged the community in the project planning process since it was determined that improvements to the municipal water and wastewater systems are needed. The City Council conducts its business and discusses the status of each of its utilities (including municipal water and wastewater) at regular monthly meetings. These meetings are open to the public where the Council allows and considers comments from the public during these meetings. The meeting minutes can be found on the official City website. The official newspaper for the City is The Blackduck American.

2.0 Existing Facilities

2.1 Municipal Water System

2.1.1 General

The City's existing municipal water system consists of two municipal wells, a water treatment facility, an elevated water storage tank, a distribution system that serves properties within the corporate City limits, and a water metering system. A location map of the City's existing municipal water system is included in Appendix A, Exhibit 3.

2.1.2 Supply

The City has two active municipal groundwater wells. The wells are designated as Well #5 and Well #8. A summary of the wells is included in Table 2-1 on the next page.

Table 2-1 - Municipal Well Data

Description		
MDH Well Name	Well #5	Well #8
MDH Unique Well #	415804	769253
Year Constructed	1985	2008
Well Depth (ft)	191	215
Casing Depth (ft)	161	190
Casing Diameter (in)	8	8
Screen Length (ft)	30	25
Casing Type	Steel	Steel
Pump Type	Submersible	Submersible
Pump Capacity (gpm)	130	200
Pumping Rate (gpm)	110	150

Well #5 is the backup well used by the City periodically due to its lower pump capacity and complications associated with appropriate chemical feed due to the lower pumping rate. The well is located inside the well house shown in Figure 2-1. The well house is showing its age, minor improvements are recommended for well house #5. The well was inspected by Their Well in 2019 and was reported to be in good condition. The well report is in appendix B. The well consists of an 8” Johnson stainless steel screen with #30 American Material as the gravel pack. The static water level is 15’ below the existing ground surface. The pump is a 15 HP Fairbanks Morse model #6L6 with a 130-gpm pumping capacity, which is significantly lower than the pumping capacity of well #8 and the water treatment plant design capacity.



Figure 2-1 Well House #5

Well #8 is the City’s primary well with a pitless unit as shown in Figure 2-2. The well is located approximately 100’ SW of the water treatment facility. The well was inspected by Thein Well in 2019 and was reported to be in good condition. The well was drilled in 2008 and is 215 feet deep. The static water level is 2’ below the existing ground surface. The pump is a 20 HP Franklin Electric model #FPS 6” with a 200-gpm pumping capacity.



Figure 2-2 Well #8

The source water has excessive levels of iron. Iron is a contaminant that is considered a secondary standard by the Safe Drinking Water Act (SDWA). Table 2-2 includes a summary of the notable primary and secondary drinking water standard contaminant concentrations compared to the EPA SDWA standards.

Table 2-2 - Raw (Pre-Treatment) Water Contaminant Summary

Contaminant	Tested Concentrations		
	Well #8	After Treatment	EPA Standard
EPA SDWA Primary Standards			
Arsenic (µg/l)	<0.5	<0.5	10
Nitrate (mg/l)			10
EPA SDWA Secondary Standards			
Iron (mg/l)	2.03	0.132	0.3
Manganese (mg/l)	0.023	0.016	0.05
Ammonia as N (mg/l)	1.43	1.09	N/A

Data Source: Minnesota Valley Testing Laboratories, Inc. 2024 Test Report

2.1.3 Treatment

The City has an iron removal water treatment facility that was constructed in approximately 2002 as shown below in Figure 2-3. No known rehabilitation has occurred at the facility. The facility was designed for a flow of 150 GPM. The system involves Filtronics pressure vessels for iron and manganese removal, chlorine addition with a Filtronics control system. The water treatment facility produces approximately 60,000 gallons per day. A plant evaluation was completed in 2023 and the following deficiencies were noted:

- Miscellaneous valving throughout the plant has been noted to be inoperable or weak.
- Reclaim system not operating properly.
- Magnetic flow meters not working correctly, likely leading to false readings.
- Miscellaneous issues with control panel operation
- Inadequate ventilation in chemical feed room
- Chemicals are not separated into individual rooms
- Cracking noted in block on exterior of building.
- The building's roof is at the end of useful life and should be replaced.
- Adequate heating is not provided in the building
- Proper ventilation is needed for chemical storage

All recommended improvements will be included in a later section in this FP.



Figure 2-3 Existing Water Treatment Facility



Figure 2-4 Water Treatment Facility Equipment



Figure 2-5 Water Treatment Facility Equipment

2.1.4 Storage

The City's existing 150,000-gallon elevated water storage tank was constructed in 2003. The lower water level is at 71 feet 9 inches, and the overflow level is 104 feet. The existing elevated storage tank appears to be in good condition, except for the coatings and some minor structural deficiencies. A photo of the existing elevated water storage tank is shown below in Figure 2-6.



Figure 2-6 Elevated Water Storage Tank

In 2023 the elevated storage tank was inspected and evaluated by a consultant hired by the City. The report from this inspection is included in Appendix C. Additionally, a second consultant was contacted to provide recommendations. Both the report and secondary consultant noted deficiencies and non-compliance with OSHA and Department of Health Regulations and standards associated with the tank. The following deficiencies were noted:

- Interior wet and dry areas coatings are noted as fair to poor condition with moderate staining and paint failures.
- The exterior coatings are noted to be in fair to poor condition.
- Recommended structural repairs include: replace tank vent, replacing roof handrail, vent manway, climb assist.

City staff has indicated issues with freezing in winter months. Without a tank mixer the City is forced to run the elevated storage tank at a lower elevation to circulate water more frequently throughout the winter. This results in lower water pressures and less stored water for emergency situations. A tank mixer will be included as part of this PER.

As shown in Table 2-2 the City’s average daily water usage for 2023 was 64,236 gallons per day(gpd) with a design daily demand of 72,362 gpd. MDH recommends at least one day of storage be provided, therefore the 150,000 gallon elevated storage tank has adequate capacity.

2.1.5 Water Usage

The City’s total, average daily and maximum daily water pumped from the City’s municipal wells for each month for the past 7 years are included in the Annual Water Usage Summary in Appendix B. An annual summary of this data and the calculated peaking factor (maximum daily usage divided by average daily usage) is included in Table 2-2.

Table 2-2 – Historical Water Usage Summary

Year	Total Annual Usage (gal)	Average Daily Usage (gpd)	Maximum Daily Usage (gal)	Calculated Peaking Factor
2024	21,062,000	57,705	105,000	1.82
2023	23,446,000	64,236	126,000	1.96
2022	19,642,000	53,814	115,000	2.14
2021	22,274,000	61,025	124,000	2.03
2020	20,664,000	61,809	122,000	1.97
2019	20,663,000	56,611	99,000	1.75
2018	20,729,000	56,792	99,000	1.74
Averages =	21,208,571	58,860		1.92

Ten States Standards requires that municipal water systems be designed for the maximum daily demand at the design year. Given the City’s increasing population trend, it is reasonable to assume growth will continue. The data shows the existing daily water usage over the past 7 years is 58,860 gpd. The 2023 flow of 64,236 gpd will be used for projecting design flows. This is an estimated 9% flow increase (for safety factor, potential growth, industry, etc.), which will be applied to the design daily demand for a total of 78,971 gpd. The calculated peaking factor, 1.92, from the City’s historical water usage data included in Table 2-2 is typical for a community this size. A few elevated days can be the result of hydrant flushing, a watermain

break, or a fire event. A peaking factor of 2.25 is reasonable for design; this peaking factor was used to calculate the design maximum daily demand of 177,685 gpd for this PER. Table 2-3 includes a summary of the present and design flows that will be used in this PER.

Table 2-3 – Design Flow Summary

Design Peaking Factor	2.25
Present Average Daily Usage (gpd)	64,236
Present Maximum Daily Usage (gpd)	126,000
Design Average Daily Demand (gpd)	78,971
Design Maximum Daily Demand (gpd)	177,685

2.1.6 Distribution

The existing water distribution system is constructed of cast iron (CI) and polyvinyl chloride (PVC) pipe. The CI watermains are over 50 years old. An estimated summary of the City’s existing watermain is included in Table 2-4.

Table 2-4 - Existing Watermain Summary

Size	Material	Length (LF)
3"	PVC	490
4"	PVC	3,224
6"	PVC	11,387
8"	PVC	15,092
4"	CI	11,176
6"	CI	2,145
Total =		43,024

The City has repaired two watermain breaks on Morris Avenue and one watermain break on Margaret Avenue. As this pipe ages, additional breaks can be anticipated.

There are currently 15 hydrants within the city that are being supplied with 4” watermains. Ten States Standards (TSS) requires a minimum of 6” diameter watermains for supplying hydrants and that dead end watermains be minimized.

There are currently 100 active water services within the project planning area. The water service lines were installed while the watermain was constructed. It is likely the services connected to the CI watermains have not been replaced since the initial installation. If watermain is replaced, the water service should be replaced to the right-of-way line. Replacing water services while the street is being reconstructed will significantly reduce the risk of costly failures in the future.

As shown in Appendix A, Exhibit 3, the City’s watermains are located in the city streets and turf easements. The alignment of the City watermain is typically offset 10 to 20 feet from the sanitary sewer main. The city streets are typically 30 to 40 feet

wide with bituminous surfacing and concrete curb and gutter centered within 60 to 80-foot right-of-way.

The trunk highway right-of-way in the City varies from 120 to 200 feet. The utilities that are within trunk highway right-of-way run perpendicular to the right-of-way line and are only used for crossings.

2.1.7 Financial Status

There are 313 total individual connections to the City’s water distribution system. A summary of these hookups is included in Table 2-5.

Table 2-5 - Existing Water System User Summary

Description	Connections
Residential	219
Commercial	71
Industrial	23
Total Water System Connections =	313

The City has a usage-based billing structure for their water system. The base rate for each residential user is \$18 with an additional charge of \$0.0076 per gallon. The base rate for each multifamily user is \$18 with an additional charge of \$0.0076 per gallon. The base rate for each commercial user is \$28 with an additional charge of \$0.0076 per gallon.

The City provided financial data for the municipal water system for 2017 through 2023. Table 2-6 includes a summary of the City’s income and expenses for their municipal water system.

The City’s water system incomes have exceeded the water system expenses in most years. Grants were a major contributing factor to the City’s incomes exceeding the expenses.

Table 2-6 - Existing Water System Financial Summary

Description	2017	2018	2019	2020	2021	2022	2023
Operation & Maintenance Costs							
Personnel Services	\$76,949	\$73,999	\$78,075	\$93,892	\$86,141	\$109,038	\$129,601
Utilities	\$10,463	\$9,035	\$11,623	\$12,470	\$12,580	\$14,834	\$13,786
Supplies and Materials	\$9,159	\$9,362	\$7,851	\$4,933	\$16,998	\$11,673	\$11,942
Repairs and Maintenance	\$8,087	\$9,923	\$10,692	\$8,740	\$7,352	\$8,623	\$16,953
Contracted Services	\$3,100	\$3,571	\$8,763	\$31,836	\$9,764	\$4,074	\$15,164
Insurance	\$3,301	\$3,799	\$3,752	\$4,195	\$4,494	\$4,722	\$8,073
Depreciation and Amortization	\$70,945	\$70,004	\$70,006	\$83,099	\$84,519	\$84,519	\$84,030
Other Expenses	\$14,563	\$7,001	\$10,019	\$8,524	\$14,299	\$25,137	\$17,489
Total Annual O&M Cost =	\$196,567	\$186,694	\$200,781	\$247,689	\$236,077	\$262,260	\$297,038
Existing Debt Payments							
Principal & Interest Payment	\$20,621	\$18,726	\$19,546	\$19,371	\$19,308	\$17,877	\$17,126
Misc.	-	-	-	-	-	-	-
Total Annual O&M and Debt Cost =	\$217,188	\$205,420	\$220,327	\$267,060	\$255,385	\$280,497	\$314,164
Revenue							
User Fees	\$200,307	\$206,563	\$207,451	\$210,570	\$220,225	\$219,177	\$218,472
Grants and Aids	\$214,286	-	\$30,165	\$6,994	-	\$6,411	\$10,693
Misc.	\$162	\$181,920	\$8,173	\$9,068	\$3,074	\$1,643	\$1,971
Total Annual Revenue =	\$414,755	\$388,483	\$245,789	\$226,632	\$232,299	\$227,231	\$231,136
	\$197,567	\$183,063	\$25,462	-\$40,428	-\$32,086	-\$53,266	-\$83,028

2.1.8 Audits

The City has not conducted any water audits on their municipal water system.

2.2 Wastewater System

2.2.1 General

The City's existing wastewater system includes a gravity central collection system, six wastewater pumping stations, a three-cell stabilization pond system, an irrigation pumping station, and a spray irrigation land application system. An exhibit of the City's existing wastewater system is included in Appendix A, Exhibits 2A and 2B.

2.2.2 Collection

Most of the City's wastewater collection system consists of PVC and vitrified clay pipe (VCP) sewer mains and services. The VCP sewer lines are estimated to be 60+ years old. An estimated summary of the City's existing sanitary sewer collection system is included in Table 2-7.

Table 2-7 - Existing Sanitary Sewer Main Summary

Size	Material	Type	Length (LF)
6"	VCP	Gravity	2,830
8"	VCP	Gravity	7,320
16"	VCP	Gravity	290
8"	PVC	Gravity	15,368
Unknown	Unknown	Force Main	240
2"	HDPE	Force Main	340
4"	HDPE	Force Main	2,139
8"	PVC	Force main	8,549
Total =			36,626

The City televised portions of the gravity collection system in 2006 and 2021. The televising shows sags, pipe cracking, holes, blockages, offset joints, infiltration, and protruding roots. The report is included in Appendix I. The VCP lines are in poor condition and are increasing the inflow/infiltration into the collection system. Additionally, there are still approximately 12 brick manholes remaining in the city that need replacement. The brick manholes are in poor condition, resulting in elevated amounts of inflow/infiltration.

As shown in Appendix A, Exhibit 2A, the City's sanitary sewer mains are located in the city streets, alleys, and turf easements. The alignment of the sanitary sewer mains is typically centered in the street, alley right-of-way, and turf easements. The alleys have varying widths of aggregate surfacing and/or bituminous pavement. The

sanitary sewer in city alleys is typically centered within the 20' right-of-way. The city streets are typically 30 to 40 feet wide with bituminous surfacing and concrete curb and gutter centered within 60 to 80-foot right-of-way.

The trunk highway right-of-way in the city varies from 120 to 200 feet. The City utilities within trunk highway right-of-way are for crossings.

2.2.3 Pumping

The City has six pumping stations in their wastewater system. These pumping stations are designated as the Main, West End, Drake Motel, Black Mallard, Frenzel, and Forestry Lift Stations. Their locations are shown in Appendix A, Exhibits 2A and 2B.

Lift Station 1 (Main Lift Station)

Lift station 1 serves the City's entire sanitary sewer collection system. This lift station pumps the wastewater from the City's sanitary sewer collection system to an influent splitter structure at the stabilization ponds. The lift station consists of a below grade wet well and a below grade valve manhole. Lift station 1 is shown in Figure 2-7 below.

The lift station consists of 2-20 horsepower Flygt pumps. In recent years the City has seen high daily readings as a result of a float sticking that causes the pumps to run for extended periods of time. The valve manhole is showing corrosion on piping, valves, and mechanical elements. There are 2 gate valves, 2 swing check valves, and 2 air release valves, it is unknown if they are in proper working order.

The City reported a wastewater release in October 2018. The force main had a break that resulted in a release that bubbled to the ground surface. Approximately 800 gallons of wastewater was released from this break.

The City is currently undergoing a temporary repair to replace failing piping in the wet well. The city is hopeful this fix will allow them to remain in service until a full rehab can be completed.

The primary power source for Lift Station 1 is three phase electrical power. This lift station has a generator receptacle, but not a reliable alternate power source.



Figure 2-7 Main Lift Station (lift station 1)

Lift Station 2 (West End Lift Station)

Lift station 2 serves an apartment building, several business's, a church, along with a townhome complex. This lift station consists of an oversized wet well structure with 1.6 horsepower Flygt pumps. These pumps are not grinder pumps, which can add to issues associated with plugging. It is unknown as to whether any of the valves are functional.

Wastewater is pumped through a 4" force main and discharges into a manhole on Industrial Lane.

The primary power source for Lift station 2 is single phase electrical power. This lift station has a makeshift generator cable but does not have a reliable alternate power source.

Lift Station 3 (Drake Motel Lift Station)

This lift station serves The Pond (city's municipal Liquor Store), Blackduck Leavers Foods, and the Drake motel. The lift station is a single structure with piping and

pumps inside. The interior piping is held together with straps and chains, shown in Figure 2-8.



Figure 2-8 Drake Motel Lift Station (lift station 3)

Wastewater is pumped through a 2” force main to a manhole at a wayside rest. This force main leaked in 2021, where the piping was pulled apart.

The primary power source for Lift station 3 is single phase electrical power. Basic controls are provided for this lift station. This lift station does not have a reliable alternate power source or a receptacle for a generator connection.

Lift Station 4 (Black Mallard Lift Station)

Lift station 4 serves Liberty Drive on the North side of TH 71. The pump station has a short force main run to discharge into a manhole on Main Street. This pump station was constructed in the late 1990’s and includes 2-2.4 horsepower pumps. City staff is unsure if the check valve or air release are working properly.

The primary power source for Lift Station 4 is single phase electrical power. This lift station has a generator receptacle, but not a reliable alternate power source.

Lift Station 5 (Frenzel Lift Station)

Lift station 5 is located on 4th St. SE and serves the cul-de-sac along with the extended care facility. This pump station was problematic for the city and recently went through an extensive upgrade in the summer of 2022.

The lift station is a precast structure, which appears to be in good shape. The updates included 2 new 4 horsepower Piranha grinder pumps along with a new panel with upgrades to a cell-based monitoring system.

The primary power source for Lift Station 5 is single phase electrical power. This lift station does not have a reliable alternate power source.

Lift Station 6 (Forestry Lift Station)

Lift station 6 solely serves the DNR forestry building on the South end of town. The force main runs under TH 71 and discharges into a manhole on Oscar Ave.

The wet well and valve manhole are both precast structures. The valve Manhole has two swing valves, a check valve and air release valves.

The primary power source for Lift Station 6 is three phase electrical power. This lift station does not have a reliable alternate power source.

2.2.4 Treatment

The City's existing three-cell stabilization pond system shown in Figure 2-9, was constructed in 1987, consists of two primary cells and a secondary cell with control structures. The two primary cells are 5.0-acres each and the secondary cell is 13.1-acres. The pond is connected to the collection system via an 8" PVC force main from the Main Lift Station. The pond discharges to an effluent pumping structure and the effluent is then pumped via a 12" force main to a land application site that is 158-acres. The irrigation system consists of four center pivot spray irrigation units and two solid set irrigation guns. The land application site was constructed with a tile drainage system that outlets to a low land area to the southeast of the land application site. The effluent limits for the site are 200 organisms per 100-ml for fecal coliform per calendar month.

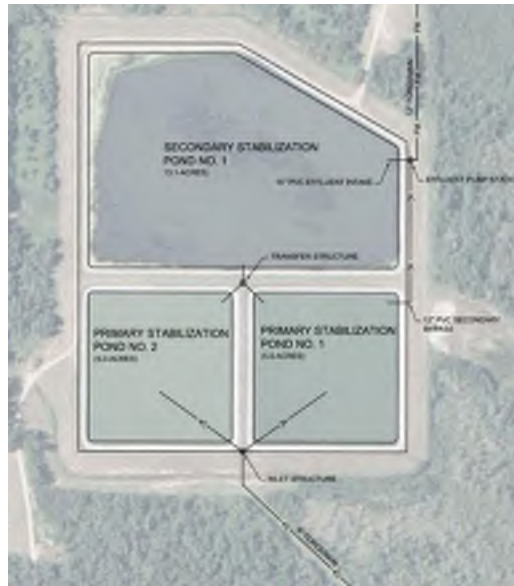


Figure 2-9 Existing Stabilization Pond Layout

Table 2-8 shows a summary of the permit limits. The facility design summary from the operation and maintenance manual is shown in Table 2-9. A summary of the facility influent and effluent data from the Discharge Monitoring Data is included in Appendix G.

Table 2-8 - Permit Limit Summary

Criteria	Limit	Source
5-Day Carbonaceous Biochemical Oxygen Demand	Monitor only	MPCA
Total Suspended Solids	Monitor only	MPCA
Fecal Coliform Organisms	Less than 200 organisms per 100 ml	MPCA
pH (Standard Unit)	Monitor only	MPCA

TABLE 2.9 - DESIGN SUMMARY

Average Annual Design Flow	100,000	gpd
Average Dry Weather Design Flow, ADW	73,000	gpd
Average Wet Weather Design Flow, AWW	116,000	gpd
Peak Hourly Wet Weather Design Flow, PHWW	158,900	gpd
Peak Instantaneous Wet Weather Design Flow, PIWW	149,100	gpd

The stabilization ponds and control structures are in fair condition and some upgrades will be required. Rehabilitation of the control structures, updating outlet piping, and adding riprap higher on the embankment side slopes is needed.

The effluent pumping station needs rehabilitation. The pump station that transfers effluent to the spray irrigation system is located at the northeast corner of the secondary pond and shown in Figure 2-10. Effluent from either the secondary pond

or primary pond number 1 may be transferred to the pump station through gravity lines. Operator uses one of two vertical turbine pumps to transfer wastewater effluent from the wet well to the center pivot irrigation systems through a 12" diameter force main.

Per original construction plans, an "angle pressure relief valve" and "pressure switch" were provided for returning pump flow back to the wet well. The purpose of this equipment was to control the pressure and related flow to the center pivot irrigation system. This method of pressure and flow control is not energy efficient.

Actual installation of the vertical turbine pumps varied from the original plans which had both pump discharge flanges facing east. Pumps were orientated with the discharge flanges facing opposite directions (north south). Each of the vertical turbine pumps discharge directly into a side outlet elbow to turn the flow 90 degrees to the east. Air vacuum valves are located on top of the side outlet elbows. This type of fitting was likely selected (versus a 90-degree bend) to save a tee fitting which the air vacuum valves were to be located per original drawings.

Use of a side outlet elbow directly off a pump discharge flange to change flow direction is not recommended by pump manufacturers or pumping system design guidelines. Additionally, the air vacuum valves located on top of the side outlet elbows likely never worked properly due to the turbulent flow conditions at this location and currently are not functional.

Existing check valves, pressure relief valves and other equipment associated with the effluent pump station are currently not functional or operating correctly. City staff uses hand operated isolation valves while operating one pump at a time to "control" flow and pressure to the center pivot irrigation system as best as possible.

No flow measurement of effluent to the irrigation system was provided in the original design. Operators control flow and pressure to the center pivot irrigation system units being used by hand setting of valve(s) for recycling of pumped flow back into the wet well. Effluent flow pumped to the irrigation system is then estimated by the published center pivot irrigation unit capacity of 16,500 gph times the number of hours operated each season. This provides the city with an effluent total irrigated each year that is likely plus or minus 20% of the actual amount.



Figure 2-10 Effluent Pumping Station

Once pumped to the 158-acre land application site, the effluent is irrigated through 4 center pivot and two solid set irrigators as shown on the layout in Figure 2-11. The city has experienced difficulties discharging during the summer months. The soils at the irrigation site are primarily clays and silts and do not infiltrate the effluent as quickly as cohesionless soils. This is especially notable on wet years when soil moisture is already high. This report will be investigating expanding the facility to include an additional 40 acres to the East. This will allow the city to irrigate more frequently and effectively. The proposed site design for this addition is shown in Appendix A Exhibit 6.

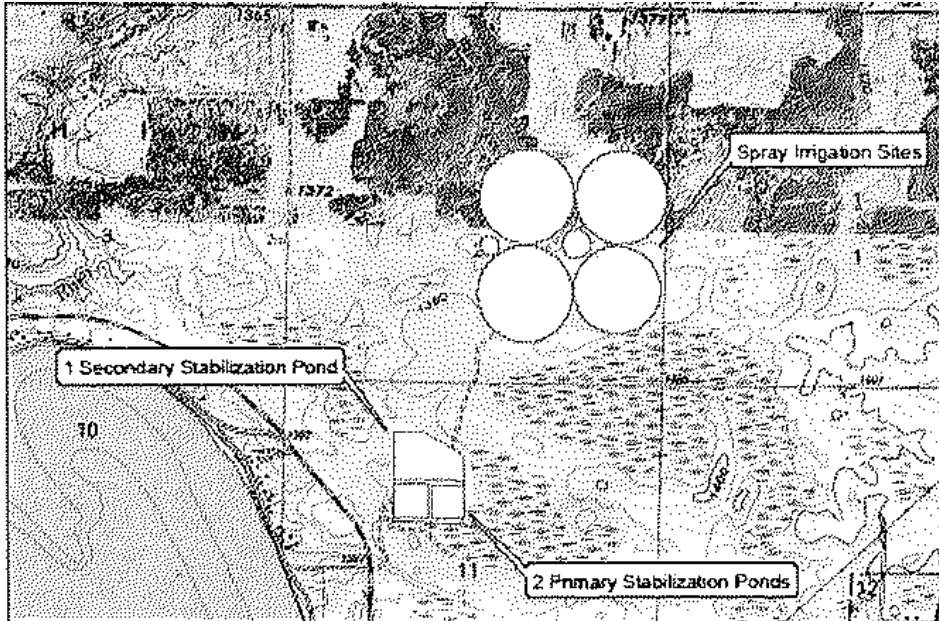


Figure 2-11 Land Application Site

2.2.5 Wastewater Flow

The City's wastewater treatment facility is permitted by the Minnesota Pollution Control Agency (MPCA) to treat an average wet weather (AWW) design wastewater flow of 0.125 mgd.

The City's wastewater flows are elevated in the summer months. Elevated wastewater flows during non-winter months is common in this area. Common sources of excess wastewater flow during the non-winter months in this area include groundwater infiltration of the collection system, inflow of rainwater through manhole covers, sump pump discharge and roof drains connected to the gravity collection system. As mentioned previously the City has experienced some unusually high daily maximum flow readings that have been attributed to a float in the Main Lift station sticking. The daily discharge monitoring data was evaluated and those peak days were eliminated from calculations. A summary of the City's average daily wastewater flow for each month for the past 7 years is included in Table 2-10 on the following page.

Table 2-10 - Wastewater Flow Summary

Month	Average Wastewater Flow (mgd)						
	2024	2023	2022	2021	2020	2019	2018
January	0.047	0.049	0.057	0.076	0.053	0.050	
February	0.090	0.052	0.047	0.071	0.061	0.051	0.047
March	0.079	0.050	0.073	0.078	0.083	0.066	0.054
April	0.111	0.128	0.172	0.127	0.166	0.186	0.066
May	0.219	0.145	0.208	0.101	0.103	0.154	0.104
June	0.200	0.096	0.137	0.065	0.093	0.097	0.097
July	0.131	0.093	0.087	0.057	0.087	0.108	0.074
August	0.079	0.065	0.069	0.052	0.104	0.064	0.053
September	0.064	0.062	0.062	0.055	0.083	0.075	0.055
October	0.061	0.078	0.059	0.089	0.072	0.141	0.092
November	0.073	0.081	0.062	0.072	0.068	0.088	0.081
December	0.110	0.079	0.055	0.061	0.053	0.066	0.056
Average =	0.108	0.081	0.090	0.0704	0.087	0.096	0.069

A monthly summary of the City’s water usage and wastewater flow for each month for the past 5 years in shown below in Table 2-11.

Table 2-11 – WW Vs. Water Flow Summary

	Precipitation(in.)	Total Wastewater Flow (MG)	WW Peak Daily Flow (mgd)	Total Water Usage (MG)
2020				
January	0.88	2.363	0.092	0
February	0.07	1.566	0.168	1.659
March	0.35	2.578	0.218	1.772
April	0.99	5.373	0.384	1.858
May	1.4	3.201	0.14	1.861
June	3.8	3.984	0.548	1.894
July	4.5	3.057	0.453	2.109
August	6.5	3.217	0.268	2.347
September	2	2.503	0.291	1.888
October	1.1	2.242	0.088	1.883
November	0.38	3.46	0.089	1.805
December	0.56	1.636	0.066	1.568
2021				
January	0.41	2.393	0.161	1.649
February	0	2.283	0.148	1.593
March	0.47	3.038	0.164	1.727
April	3.6	5.339	0.285	1.592
May	0	4.78	0.297	2.021
June	1.1	2.666	0.08	2.212
July	1.4	1.78	0.083	2.276
August	2	1.6	0.059	2.373

September	3.1	1.663	0.065	1.984
October	5.7	2.766	0.552	1.782
November	0.83	2.163	0.084	1.456
December	1.9	1.886	0.074	1.609

2022

January	0.71	1.523	0.062	1.595
February	1	1.322	0.06	1.642
March	0.43	2.271	0.152	1.675
April	7.4	5.854	0.27	1.613
May	3.4	3.806	0.29	1.714
June	3.4	4.1	0.259	1.708
July	3.3	2.684	0.123	1.781
August	5.9	2.149	0.1	1.702
September	1.8	1.868	0.076	1.577
October	0.73	2.079	0.117	1.434
November	1.4	1.847	0.069	1.526
December		1.702	0.066	1.675

2023

January	0.39	1.444	0.058	1.585
February	0.65	1.459	0.073	1.613
March	1.3	1.539	0.059	2.023
April	1.5	3.838	0.289	1.790
May	2.74	4.493	0.290	1.883
June	2.89	2.876	0.134	2.034
July	3.5	2.562	0.182	1.892
August	2.08	2.003	0.085	2.203
September	3.53	1.874	0.092	2.195
October	2.39	2.423	0.100	2.079
November	0.26	2.444	0.095	2.090
December	1.9	2.460	0.176	2.059

2024

January	0.52	2.563	0.111	1.810
February	0.49	2.596	0.140	1.631
March	0.52	2.450	0.119	1.644
April	1.83	3.327	0.166	1.568
May	5.8	6.793	0.384	1.654
June	4.87	5.994	0.367	1.609
July	2.1	4.076	0.254	1.589
August	2.75	2.443	0.113	1.721
September	0.89	1.909	0.072	1.884
October	1.29	1.895	0.068	1.844
November	2.04	2.196	0.111	1.808
December	1.03	3.420	0.142	2.300

The WWTF is designed for an annual average flow of 125,000 gallons per day. The 210 wettest days provide a flow of 118,000 gpd. A moderate population increase is

accounted for in analysis and a 25% I/I reduction is appropriate for design. From analysis the calculated average wet weather design flow is 116,000 gpd, thus the WWTF has a suitable capacity for the city, with total detention time of 240 days.

2.2.6 Financial Status

There are 280 total individual connections to the City’s sanitary sewer collection system. A summary of these hookups is included in Table 2-12.

Table 2-12 - Existing Sanitary Sewer System User Summary

Description	Connections
Residential	188
Commercial	69
Industrial	23
Total Sanitary Sewer System Connections =	280

The City has a usage-based billing structure for their wastewater system. The base rate for each residential user is \$18 with an additional charge of \$0.0076 per gallon. The base rate for each multifamily user is \$18 with an additional charge of \$0.0076 per gallon. The base rate for each commercial user is \$28 with an additional charge of \$0.0076 per gallon.

The City provided financial data for the sanitary sewer system for 2017 through 2023. Table 2-13 includes a summary of the City’s income and expenses for their sanitary sewer system, including annual existing debt principal and interest payments from 2017 through 2023.

**Table 2-13 - Existing Wastewater System
Financial Summary**

Description	2017	2018	2019	2020	2021	2022	2023
Operation & Maintenance Costs							
Personnel Services	\$80,921	\$76,712	\$82,189	\$93,691	\$90,364	\$110,547	\$132,914
Utilities	\$21,603	\$16,701	\$26,588	\$19,745	\$17,986	\$26,451	\$21,770
Supplies and Materials	\$2,656	\$2,912	\$2,526	\$3,491	\$5,621	\$4,660	\$8,339
Repairs and Maintenance	\$5,535	\$7,612	\$8,773	\$7,784	\$15,758	\$5,409	\$4,897
Contracted Services	\$4,304	\$7,206	\$3,393	\$30,945	\$14,613	\$9,915	\$19,248
Insurance	\$5,060	\$5,745	\$5,620	\$7,549	\$7,978	\$8,128	\$10,421
Depreciation and Amortization	\$80,895	\$81,140	\$14,374	\$27,030	\$28,146	\$28,146	\$23,618
Other Expenses	\$4,208	\$5,491	\$5,580	\$5,086	\$6,592	\$5,791	\$12,056
Total Annual O&M Cost =	\$205,182	\$203,519	\$149,043	\$195,321	\$187,058	\$246,047	\$233,263
Existing Debt Payments							
Principal & Interest Payment	\$3,010	\$7,729	\$5,885	\$2,688	\$3,212	\$2,087	708
Misc.	\$3,813	-	\$16	-	-	-	-
Total Annual O&M and Debt Cost =	\$212,005	\$211,248	\$154,944	\$198,009	\$190,270	\$248,134	\$233,971
Revenue							
User Fees	\$157,536	\$159,514	\$155,182	\$204,831	\$218,086	\$221,431	\$220,901
Grants and Aids	\$291,805	\$8,620	\$51,383	-	-	-	-
Misc.	\$8,182	\$113,197	\$13,856	\$14,545	\$11,831	\$2,192	\$2,943
Total Annual Revenue =	\$457,523	\$281,331	\$220,421	\$219,376	\$229,917	\$224,374	\$223,844
	\$245,518	\$70,083	\$65,477	\$21,367	\$39,647	-\$23,760	-\$10,127

2.2.7 Audit

The City has not conducted any audits on the wastewater system.

3.0 Need for Project

3.1 Health, Sanitation and Security

A. Wastewater System

Deficient Sanitary Sewer mains

The old VCP sanitary sewer mains and services are in very poor condition. There are numerous 6” sewer mains throughout the collection system. These will all be updated to 8” to comply with TSS. Televising was performed in 2006 and 2021 to assess the condition of the collection system. The televising reports highlight a regular frequency of defects along VCP sewer mains including offset joints, cracked and broken pipe, intruding service connections, leaky service connections, root penetration through pipe joints, deposits causing blockage in pipe, and pipe sags. Offset joints, broken pipe, intruding service connections, deposits, and sags are defects that contribute to pipe blockage and potential backups. Additionally, offset joints, cracked and broken pipe, leaky sewer connections, and root penetrations contribute to clean water infiltration into the collection system.

These defects allow excessive flow which puts additional strain on the pump stations and treatment system.

Undersized Force mains

The City has an 8” force main that runs from the Main Lift Station to the stabilization ponds, a 3” force main, along with a 2” force main out of the Drake Motel lift Station. With the absence of grinder pumps TSS requires 4” force mains.

Main Lift Station

Main Lift Station is not compliant with the following TSS provisions:

- Portions of the lift station are confined spaces and proper safety techniques must be used for access to these areas.
- TSS requires shutoff valves and check valves on the discharge line of each submersible pump. These valves are not in proper working order.
- Accurate metering is not provided.
- TSS requires standby power for wastewater pumping stations by connection to at least two independent public power sources or a dedicated portable or in-place auxiliary power of adequate supply and connectivity unless on-system overflow prevention is provided by adequate wastewater storage capacity. The lift station is connected to a single public power source and does not have on-system overflow prevention. This lift station does have a receptacle for generator hookup

Outdated controls add to the complexity of adequately monitoring, operating, and maintaining the lift stations.
Metering is not provided at this lift station.

West End Lift Station

The West End Lift Station is not compliant with the following TSS provisions:

- TSS requires shutoff valves and check valves on the discharge line of each submersible pump. These valves are not in working order. Is this correct?
- TSS requires standby power for wastewater pumping stations by connection to at least two independent public power sources or a dedicated portable or in-place auxiliary power of adequate supply and connectivity unless on-system overflow prevention is provided by adequate wastewater storage capacity. The lift station is connected to a single public power source and does not have on-system overflow prevention. This lift station does not have a receptacle for generator hookup

Outdated controls add to the complexity of adequately monitoring, operating, and maintaining the lift stations.

Drake Motel Lift Station

The Drake Motel Lift Station is not compliant with the following TSS provisions:

- TSS requires standby power for wastewater pumping stations by connection to at least two independent public power sources or a dedicated portable or in-place auxiliary power of adequate supply and connectivity unless on-system overflow prevention is provided by adequate wastewater storage capacity. The lift station is connected to a single public power source and does not have on-system overflow prevention. This lift station does not have a receptacle for generator hookup.
- TSS requires shutoff valves and check valves on the discharge line of each submersible pump. There are no shutoff valves or check valves on the discharge line of either pump.

Outdated controls add to the complexity of adequately monitoring, operating, and maintaining the lift stations.

This station has deteriorated and needs replacement. The pipe inside the structure are strapped together to hold them in place.

Black Mallard Lift Station

The Black Mallard Lift Station is not compliant with the following TSS provisions:

- TSS requires shutoff valves and check valves on the discharge line of each submersible pump. These valves are not in proper working order.
- TSS requires standby power for wastewater pumping stations by connection to at least two independent public power sources or a dedicated portable or in-place auxiliary power of adequate supply and connectivity unless on-system overflow prevention is provided by adequate wastewater storage capacity. The lift station is connected to a single public power source and does not have on-system overflow prevention. This lift station does not have a receptacle for generator hookup

Outdated controls add to the complexity of adequately monitoring, operating, and maintaining the lift stations.

Forestry Lift Station

The Forestry Lift Station is not compliant with the following TSS provisions:

- TSS requires shutoff valves and check valves on the discharge line of each submersible pump. These valves are not in working order.
- TSS requires standby power for wastewater pumping stations by connection to at least two independent public power sources or a dedicated portable or in-place auxiliary power of adequate supply and connectivity unless on-system overflow prevention is provided by adequate wastewater storage capacity. The lift station is connected to a single public power source and does not have on-system overflow prevention. This lift station does not have a receptacle for generator hookup

Outdated controls add to the complexity of adequately monitoring, operating, and maintaining the lift stations.

Wastewater Treatment System

No flow measurement of effluent to the irrigation system was provided in the original design. Operators control pressure to the center pivot irrigation system units being used by hand setting of valve(s) for recycling of pumped flow back into the wet well. Effluent flow pumped to the irrigation system is then estimated by the published center pivot irrigation unit capacity of 16,500 gph times the number of hours operated each season. This provides the City with an effluent total irrigated each year that is likely plus or minus 20% of the actual amount. The deteriorated conditions of the effluent pump station lack true flow measurement capabilities. The effluent pump station should be rehabilitated as part of the proposed project.

B. Water System

Lack of Standby Power for Groundwater Wells

TSS requires standby power for groundwater supply wells by connection to at least two independent public power sources or a dedicated portable or in-place auxiliary power of adequate supply and connectivity. The City's pumphouse is currently connected to a single public power source and do not have an adequate standby power source.

The secondary well does not provide maximum day capacity as required by TSS.

Undersized Watermains and Dead End Watermains

TSS requires minimum 6" diameter watermain for watermains providing fire protection and serving fire hydrants and that dead end watermains be minimized. Dead ends contribute to stagnant water and pressure issues. The City must routinely flush the dead end watermains to minimize stagnant and poor-quality water. Watermains need to be looped and replaced

throughout the City to eliminate complaints of low pressure due to long service lines in the area and reduce the amount of maintenance by the City.

Water Treatment Facility

The treatment system has met its useful life and needs replacement. Two separate wells are used for the water source supply, with well number 5 just being a backup well. The treatment system does not adequately treat water from the two sources, as the flow from each well is different. The treatment system cannot accommodate this, which has been problematic in meeting proper treatment levels.

The building is aging and needing repair. The EPA requires different chemicals to be stored separately, but the current facility stores all chemical in close proximity. A more reliable heat source and adequate ventilation are required. This will be corrected at part of this project.

3.2 Aging Infrastructure

A. Wastewater System

Collection System

Over 40% of the sanitary sewer and service lines in the system consist of vitrified clay pipe (VCP). This infrastructure has met its useful life. Recent televising indicates a regular frequency of defects along sewer mains including offset joints, cracked and broken pipe, intruding service connections, leaky service connections, root penetration through pipe joints, deposits causing blockage in pipe, and pipe sags. These types of defects contribute to clean water I/I of the collection system and pipe blockage resulting in potential sewage backups into residences.

Pump Stations

All the lift stations within the city were constructed at least 25 years ago with some being much older. Some of the structures of the wet wells and valve manhole are in fair to poor condition throughout. The valves, pumps, and other internal hardware are old, and most valves are nonfunctional. The control panels are also old and showing their age, the city is unable to monitor anything remotely to appropriately address issues. The irrigation pump station is also very old.

Wastewater treatment

Deteriorated conditions of the effluent pump station system and lack of true flow measurement need to be addressed as part of any general renovations completed on the overall wastewater collection, treatment, and irrigation systems. This would allow the City of Blackduck to document irrigation flows and application rates in more detail to allow maximization of existing irrigation system capacity.

Existing check valves, pumps, controls, pressure relief valves and other equipment associated with the irrigation pump station are currently not functional or operating correctly. City staff uses hand operated isolation valves while operating one pump at a time to “control” flow and pressure to the center pivot irrigation system as best as possible.

B. Water System

Water Distribution System

The existing water distribution system consists of areas with CI pipe. The CI watermains were installed over 50 years ago and need replacement. Gate valves and hydrants that were installed with the CI watermain will be replaced.

Water Treatment Facility

Many components of the treatment facility are aged and require updates to provide consistent water treatment. Valves in the plant are inoperable or weak, magnetic flow meters are not providing accurate readings, and miscellaneous panel issues due to age. The building’s exterior needs improvements as well: the roof needs replacement, the CMU walls are cracking and need to be remedied.

Water Supply

Wellhouse #5 was constructed in 1985 and needs rehabilitation. It is recommended to rehab both the interior and exterior of the building. (We could seal this well and construct a new well. I have been using 50 years for a well life.)

Storage

The EWST was constructed in 2003, and the coatings are at the end of their useful life. It is recommended to replace the interior and the exterior coatings of the tank.

3.3 Reasonable Growth

The population of the City has increased and decreased over its 126 year history, with there being a moderate increase of less than one percent over the last 20 years. As good practice, potential future growth was considered during the preliminary design of the proposed improvements. For the 40-year planning period of this FP, the population is anticipated to slightly increase, based on its long history. The consideration of a moderate population growth did not significantly impact the design. The proposed improvements identified in this FP are intended to serve the existing population, in anticipation of little future growth. The improvements proposed by this FP do not depend on any future growth to generate additional revenue to fund them.

4.0 Alternatives Considered

4.1 Alternative 1 – Optimizing Existing Municipal Water and Wastewater Systems (No Construction)

This alternative includes continuing to operate the City’s existing municipal water and wastewater systems without improvements. This alternative is not feasible because it will not address the various conditional and operational deficiencies and limitations of the municipal water and wastewater systems. This alternative will not be included in further consideration for this FP.

4.2 Alternative 2 – Combined Water Distribution System Replacement and Sanitary Sewer main Rehabilitation by CIPP Lining

CIPP lining can be an effective, cost saving practice to rehabilitate existing sanitary sewer main. This practice can reduce construction costs because surface disturbance and subsequent restoration can be minimized. However, CIPP lining is not a feasible alternative to resolve the issues with the deficient segments of the City’s sanitary sewer main because CIPP lining is not suitable to remedy the structural deficiencies such as offset joints, sags, and intruding service connections identified in the televising report. This alternative does not address the undersized sanitary sewer mains as part of the collection system. Additionally, the leaking service lines in the right-of-way will not be replaced. This alternative will not be included in further consideration for this FP.

4.3 Alternative 3 – Comprehensive Reconstruction

Description

The primary improvements included in this alternative are:

- Municipal Water System
 - Replace all 4” watermain within the City.
 - Replace all remaining CI watermain in the distribution system.
 - Provide backup power generator for the water treatment facility.
 - Rehabilitate Well #5 and provide security for Well #8 (Replace #5)
 - Replace the water treatment system.?????
 - Rehabilitate the water treatment facility and wellhouse #5.
 - Rehabilitate elevated water storage tank.
 - Provide a tank mixer for the elevated water storage tank.
- Wastewater System
 - Replace all of the VCP sanitary sewer mains within the City. Approximately 2,900’ of 6” VCP and 7,500’ of 8” VCP.
 - Rehabilitate all pump stations, including pumps, piping, and valves.
 - Provide a mag meter at the main lift station.
 - Provide a crane system for pulling lift station pumps.
 - Provide backup generator for Main Pump Station
 - Provide two portable generators for other pump stations.

- Replace the four center pivot irrigators, two solid set irrigation guns, and expand the land application site to include an additional 40 acres.
- Install a subsurface drainage system for the expanded land application site.
- Provide an additional center pivot irrigator for the expanded site.
- Refurbish the irrigation (effluent) pump station and upgrade controls for irrigation.
- Rehabilitate the WWTF control structures and piping.
- Add riprap higher on the embankment slopes above the current riprap
- Provide SCADA control for entire system.

These proposed improvements to the City’s municipal water and wastewater systems, as identified in the comprehensive reconstruction alternative, are shown on the proposed wastewater system improvements and proposed municipal water system improvements Exhibits 4, 5, and 6 contained in Appendix A.

Design Criteria

The improvements proposed by this alternative will be in compliance with Rural Utilities Service (RUS) design policies and MPCA design requirements. RUS design policies for the improvements proposed by this alternative require, most notably, compliance with TSS, MDH & MPCA standards.

The cost of surface restoration required for the proposed utility improvements were estimated in compliance with MN RUS 1780 Guide 43 modesty requirements. There are some areas within County right-of-way that will have special requirements as provisions of the permits that they will require to work within their right-of-way.

For areas within City right-of-way, surface restoration associated with the proposed utility improvements will be paid by unit price. The surface restoration quantities and unit prices included in this report for the proposed improvements were based on a 20-foot-wide utility trench width.

Environmental Impacts

The Contractor for the improvements proposed by this alternative will be required to remain in compliance with the MPCA National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) Construction Stormwater Permit. This permit includes, amongst others, requirements for erosion and sediment control measures to prevent impacts to wetlands and surface waters as a result of stormwater runoff from the construction site.

The Environmental Information Worksheet for the proposed project (under separate cover) includes additional discussion on any potential impacts this alternative may have on the environment. It is not anticipated that any specific environmental features would be negatively impacted by this alternative.

Land Requirements

To expand the land application site, land acquisition or lease agreement will be required as part of this project. The remaining proposed work is to be completed within public right of way.

Potential Construction Problems

Potential construction issues for this alternative include a high groundwater table, poor soils, maintenance of municipal water and sanitary sewer service and coordination with property owners for various installations.

A search of the Natural Resources Conservation Service (NRCS) Web Soil Survey shows that the proposed project area has soils ranging from sandy to clayey. Clayey/silty types of soil are poor for reconstructing streets and traffic bearing surfaces on and add to project cost because they need to be sub cut to a certain depth and removed from beneath the load bearing surfaces and replaced with suitable subbase material. A geotechnical report will be prepared by a geotechnical consulting and testing firm to be used for the design of the proposed project. The report will provide information for street design to construct an adequate supporting base.

There are rivers and wetlands near the city that could contribute to potentially high groundwater conditions, especially during periods of snow melt and precipitation. According to the search from NRCS Web Soil Survey, the properties associated with the soils in the proposed project area include a water table depth of 0 to 10 feet. These conditions increase project cost because of dewatering and the need to import rock to prepare foundations to adequately support utilities under the wet, soft conditions. Additionally, these conditions require a thicker roadway aggregate base section to handle traffic loads and facilitate drainage. The anticipated costs for managing groundwater during excavation has been included in the estimated linear foot unit prices for pipe installation for this alternative.

An alternate method of dewatering is to install well points along the proposed utility trench to temporarily draw down the groundwater level in the area. This method of dewatering is effective in more permeable type soils like granular or sandy type soils, but not as effective in soils with low permeable type soils like loamy type soils containing clay and silt. It is not anticipated that this type of dewatering will be utilized during this project. If the Contractor does decide to implement this type of dewatering method, the cost will need to be included in their unit prices for pipe installation. This estimated costs for this method would replace the estimated costs in this report for managing groundwater discussed above.

A search of the MPCA “What’s in My Neighborhood” online mapping application identified multiple sites with the potential for petroleum contaminated soils. The sites listed in Table 4-1 below are assumed to have petroleum contaminated soils

that are still present and may be encountered when installing sanitary sewer and watermain.

Table 4-1 – Potential Petroleum Contaminated Soil Sites

Unique Site ID	Site Description
106406	Timerline Sports
131628	Former American Newspaper
40173	ISD 32 - Blackduck School
9640	Blackduck Amoco
5974	Bogarts Repair and Recover Inc
120453	Good Samaritan Society
36924	NAPA Auto Parts
194622	Arthur Snustad Property

The MPCA requires that petroleum contaminated soils be remediated if they are encountered during public utility projects. The procedures required to manage contaminated soils encountered during construction disrupt construction and require additional coordination to remediate the material. Some of the costs required to remediate the petroleum contaminated soil may be eligible for reimbursement from the state Petrofund. Procedures for managing petroleum contaminated soils will be followed in compliance with MPCA regulations and reimbursement for costs associated with remediating any contaminated soils (if encountered) will be applied for.

The Contractor will be required to maintain water and sanitary sewer service during construction of the improvements proposed by this alternative. Coordination between the contractor, City and property owners will be required to maintain these utilities during construction.

Sustainability Considerations

Replacing the existing manholes will reduce the clean water inflow and infiltration of the collection system. Restricting clean water from the collection system will reduce the run time of the lift station pumps directly reducing the amount of electricity used to power the pumps. Reducing the amount of clean water in the stabilization ponds will also reduce the amount of staff time required to operate, maintain and discharge the pond system.

Looping dead end watermains will reduce wasted water from hydrant and service line flushing by eliminating stagnant water.

Cost Estimate

Itemized breakdowns of the estimated costs associated with this alternative are included in Appendix E in Tables 4-1 to Table 4-7.

5.0 Selection of Alternatives

The only feasible proposed alternative to address the issues and deficiencies of the City's municipal water and wastewater systems is Alternative 3 – Comprehensive Reconstruction. An estimated capital cost summary of the proposed project is included in Table 5-1 and Table 5-5. The estimated salvage value summary is shown in Table 5-2 and 5-6. The estimated annual operating costs of the City's municipal water and wastewater systems following the proposed improvements are shown in Tables 5-3 and 5-7. Tables 5-4 and 5-8 display the summary of the present worth for the water and wastewater systems.

6.0 Proposed Project

The proposed project includes improvements to the City's municipal water and wastewater system. The proposed project is described in detail below.

6.1 Preliminary Project Design

The proposed improvements will be in compliance with RUS design policies and MPCA/MDH requirements. RUS design policies for the improvements proposed by this PER require, most notably, compliance with TSS, MDH and MPCA standards.

6.1.1 Drinking Water

6.1.1.1 Municipal Water System

Description

The primary improvements included in this alternative are:

6.1.2 Water Distribution Improvements

- Install 16,000LF of watermain including 46 gate valves, 24 hydrants, and replacement of water service lines to the right of way.
- Replace service lines in the project planning area

6.1.3 Water Treatment Rehabilitation

- Rehabilitate water treatment building interior and exterior including:
 - Lighting system
 - CMU walls
 - Roof replacement
 - Gable end wall material replacement
 - Building heating and ventilation system
 - Provide addition for separated chemical feed room
- Rehabilitate well house #5
- Rehabilitate Water Treatment System
 - Remove Filtronics system
 - Provide new filters and media
 - Rehab backwash tank
 - Replace misc. piping and valving
 - Replace chemical feed equipment
 - Update control panel to include SCADA controls
- Provide backup power generator for the water treatment facility.

6.1.4 Water Supply Improvements

- Rehabilitate Wellhouse #5
- Provide security for Well #8
- Provide VFDs for both wells

6.1.5 EWST Rehabilitation

- Rehabilitate interior and exterior coatings for the City's elevated water storage tank. Rehabilitation will include minor structural modifications.
- Provide submersible mixer to reduce freeze ups and provide more consistent water quality.

The proposed improvements are shown on the Proposed Water System Exhibit in Appendix A.

6.2.1 Wastewater

6.2.1.1 Municipal Wastewater System

Description

The primary improvements included in this alternative are:

6.2.2 Wastewater Collection System Reconstruction

- Replace all of the VCP within the City. Approximately 2,900' of 6" VCP and 7,500' of 8" VCP.
- Replace approximately 90 manholes throughout the collection system.
- Replace service lines in the project planning area

6.2.3 Rehabilitate Pumping Stations

- Rehabilitate pump stations.
 - Provide new pumps at all stations
 - Replace misc. valving and piping
 - Provide new controls with SCADA
- Provide a meter at the main lift station and replace the valve vault
- Replace the Drake lift station structure
- Provide stationary backup generator for Main Pump Station
- Provide two portable generators for other pump stations

6.2.4 Rehabilitate Wastewater Stabilization Ponds

- Place riprap higher on the embankment slope above the current riprap
- Rehabilitate control structures
- Replace outlet piping

6.2.5 Rehabilitate Irrigation Site

- Replace the center pivot irrigators
- Expand irrigation site facility to include an additional 40 acres with center pivot irrigator. Install a draitile drainage system for this 40 acre parcel.
- Replace 2 solid set irrigation guns
- Install 1500 LF of 10" watermain

6.2.6 Rehabilitate Irrigation Pumping Station

- Replace existing concrete slab
- Replace piping and valving

- Replace magnetic flow meter
- Replace 100 hp pump
- Replace 50 hp pump
- Provide SCADA control.
- Provide VFDs for pumps

These proposed improvements to the City’s municipal water and wastewater systems are shown on the proposed wastewater system improvements and proposed municipal water system improvements exhibits in Appendix A, Exhibits 4 and 5, and 6 respectively.

6.3 Project Schedule

The estimated proposed project schedule is:

Table 6-1 - Proposed Project Schedule	
Item	Schedule
Hold Public Meeting	April 2026
Preliminary Engineering Report to RD/MPCA	March 2026
Funding Package Determination/Approvals	October 2027
Council Authorizes Preparation of Plans & Specifications (Dependent upon Funding Offer)	November 2027
Design Improvements & Permit Approvals	November 2027 – February 2028
Council Approval of Plan & Specifications and Authorizes Advertisement for bids	January 2028
Advertise for Bids	February 2028
Receive Bids	June 2028
Award/Begin Construction	July 2028
Substantial Completion	October 2029 - 2030
Complete Construction	June 2030 - 2031
Loan Closing	November or December 2030 - 2031

6.4 Permit Requirements

It is anticipated that the following permits will be required for the proposed project:

- MPCA NPDES/SDS Construction Stormwater Permit
- MPCA Sewer Extension Permit
- Beltrami County Right-of-Way Permit
- MDH Watermain Permit
- NPDES/SDS permit modification

6.5 Sustainability Considerations

Replacement of the existing sewer mains and manholes will reduce clean water inflow and infiltration of the collection system. Restricting clean water from the collection system will

reduce the run time of the lift station pumps directly reducing the amount of electricity used to power the pumps.

6.6 Total Project Cost Estimate

Itemized breakdowns of the of the estimated project costs, including construction and non-construction costs, for each component of the proposed project are included in Appendix E in Tables 4-1 to Table 4-7. A combined summary of these costs is included in Appendix E in Tables 5-1 and 5-5.

6.7 Cost Effectiveness Analysis

6.7.1 Asset Management:

The sanitary sewer collection systems will remain under the ownership and operation of the City of Blackduck. The City of Blackduck does not have a dedicated utility asset management system in place for their sanitary sewer collection system. However, the City does perform the key functions of asset management including condition assessment, planning, and budgeting for repairs, factoring costs into sewer rates, and maintenance.

6.7.2 Energy Conservation Opportunities:

The following energy conservation opportunities have been identified for the project:

- Premium efficient motors.
- Pumps running on 460V/480V (3PH) for horsepower efficiency at the Main, Forestry, and irrigation pumping stations.
- Pumps running on Variable Frequency Drives.
- Reduction of I & I from both trunk mains and manhole structures. This will reduce pump run times and transfer, thus conserving energy.
- Pumps sized at Best Efficiency Points

Each of the above items are likely to be included in the project. Specifics will be evaluated during final design.

6.7.3 Renewable Energy Opportunities:

Pump stations and center pivots have limited options for renewable energy opportunities. The major power consumption at the lift station and center pivot are the pumps, and the rest of the facility consists of the irrigator that uses minimal energy. Geothermal and wind are unlikely to be useful.

6.7.4 Water Reuse Options:

Water reuse options are not applicable for the proposed pump station. Irrigation is reuse of wastewater.

6.7.5 Installation of Water Efficient Devices:

Water efficient devices are not applicable for the proposed pump station and irrigator.

6.7.6 Water Audit and or Conservation Plan:

Water audit and/or conservation plans are not applicable for the proposed lift station and irrigation system. To promote water conservation and bill for water usage, the City of Blackduck has water meters installed.

6.7.7 Cost and Effectiveness Conclusion:

An integrated cost and effectiveness analysis did not need to be performed. There is truly only one feasible option to address the structural deficiencies and other noted deficiencies of the proposed project.

6.8 Annual Operating Budget

6.8.1 Income

The proposed project does not depend on future growth to generate income for funding. Funding agencies typically base their formulas on the Equivalent Dwelling Units (EDUs) using the utility. EDUs for the City's municipal water and wastewater systems were determined by equating the estimated water usage to the usage of an average residential household, or dwelling unit.

The City has a usage-based billing structure for their water system. The base rate for each residential user is \$18 with an additional charge of \$0.0076 per gallon. The base rate for each multifamily user is \$18 with an additional charge of \$0.0076 per gallon. The base rate for each commercial user is \$28 with an additional charge of \$0.00766 per gallon.

The City also has a usage-based billing structure for their wastewater system. The base rate for each residential user is \$18 with an additional charge of \$0.0076 per gallon. The base rate for each multifamily user is \$18 with an additional charge of \$0.0076 per gallon. The base rate for each commercial user is \$28 with an additional charge of \$0.0076 per gallon.

6.8.2 Annual Operation & Maintenance Costs

Itemized breakdowns of the estimated annual operation and maintenance costs associated with the City's municipal water and wastewater systems following the proposed improvements are included in Tables 5-3 and 5-7 in Appendix E.

6.8.3 Debt Repayments

The City is pursuing and is anticipating eligibility for funding from USDA RD or Public Facilities Authority (PFA) loans and/or grants for the proposed project.

For the purpose of this report, it was assumed that funding for the proposed project will be 100% loan, however it is likely that the City will be eligible for grant funding. Itemized breakdowns of the estimated annual combined existing and proposed debt repayment costs associated with the City's municipal water and sanitary sewer systems following the proposed improvements are included in Tables 5-3 and 5-6 in Appendix E

6.8.4 Reserves

It is anticipated that a debt service reserve will be required by the proposed project funding sources. The estimated annual debt service reserve costs associated with the municipal water and wastewater systems following the proposed improvements are included in Tables 5-3 and 5-6 in Appendix E.

Short lived assets are items that will need to be replaced and service work that will need to be performed prior to payoff of the proposed project funding. Short lived assets are not covered under the existing operation and maintenance budget. A short-lived asset reserve is recommended to cover the costs of these items. Itemized breakdowns of the estimated annual short-lived asset reserve costs associated with the City's municipal water and wastewater systems following the proposed improvements are included in Tables 5-3 and 5-6 in Appendix E.

7.0 Conclusions and Recommendations

7.1 Conclusions

Improvements to the City's municipal water and wastewater systems are recommended to address the issues discussed in this FP.

7.2 Recommendations

Submit this FP to the MPCA for review and approval.

Complete and submit applications for funding. The anticipated funder for this project is through USDA RD or PFA.

Prepare plans and specifications for review upon approval of this report.

Start Construction in 2027.

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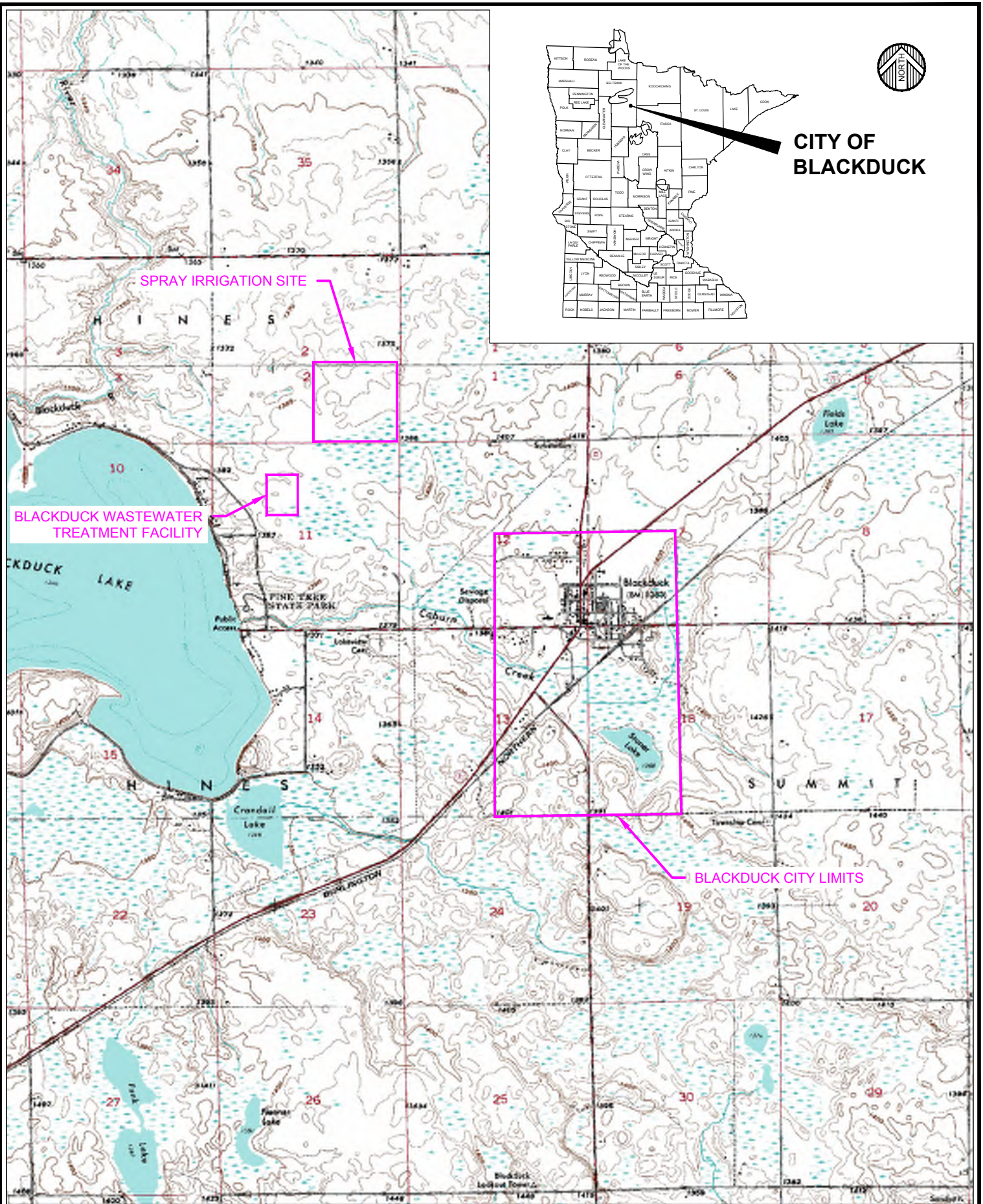
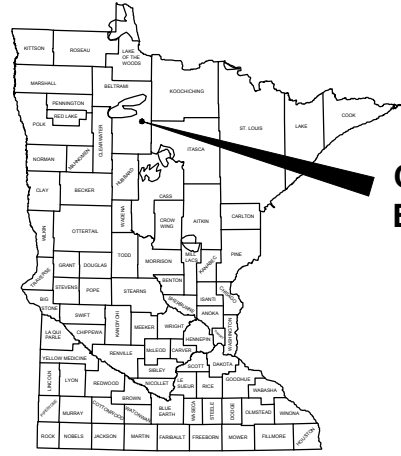
APPENDIX A

EXHIBITS

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CITY OF BLACKDUCK



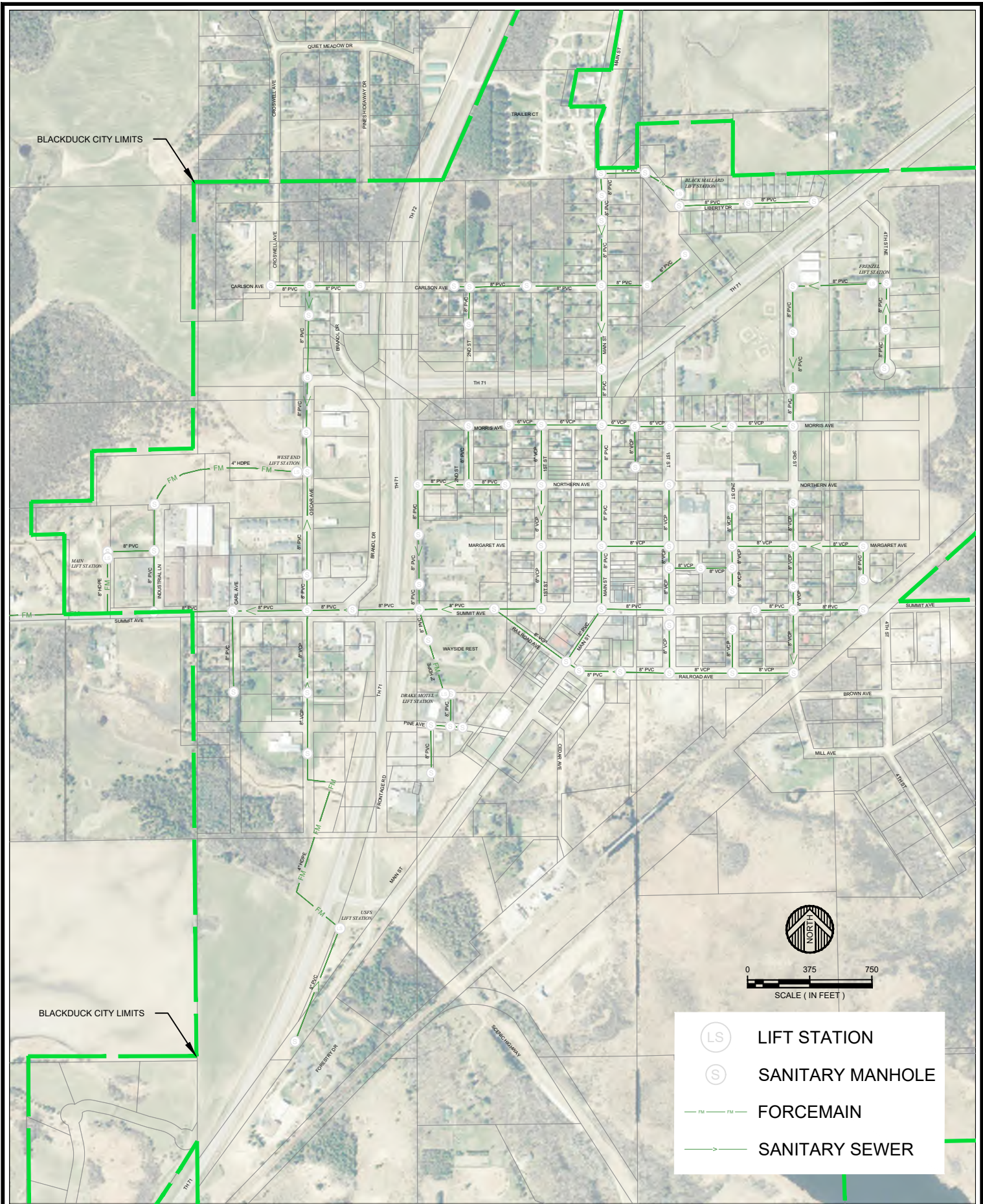
WE HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL DISCIPLINE UNDER THE LAWS OF THE STATE OF STATE

DATE	REVISION	REVISIONS DESCRIPTION	BY

DATE: JANUARY, 2021
 SCALE: AS SHOWN
 DRAWN BY: MDD
 CHECKED BY: Y.Y.V.
 JOB NUMBER: 2020-10247

WATER AND WASTEWATER SYSTEM IMPROVEMENTS
 CITY OF BLACKDUCK
 BLACKDUCK, MN
 LOCATION MAP

SHEET NO.
EX 1

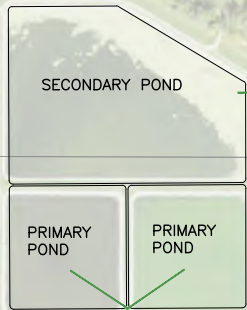


	LIFT STATION
	SANITARY MANHOLE
	FORCEMAIN
	SANITARY SEWER

DATE	REV#	REVISIONS DESCRIPTION	BY	DATE	MONTH DAY YEAR

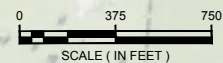
DATE: LIC. NO.:

LAND APPLICATION SITE



12" FORCE MAIN

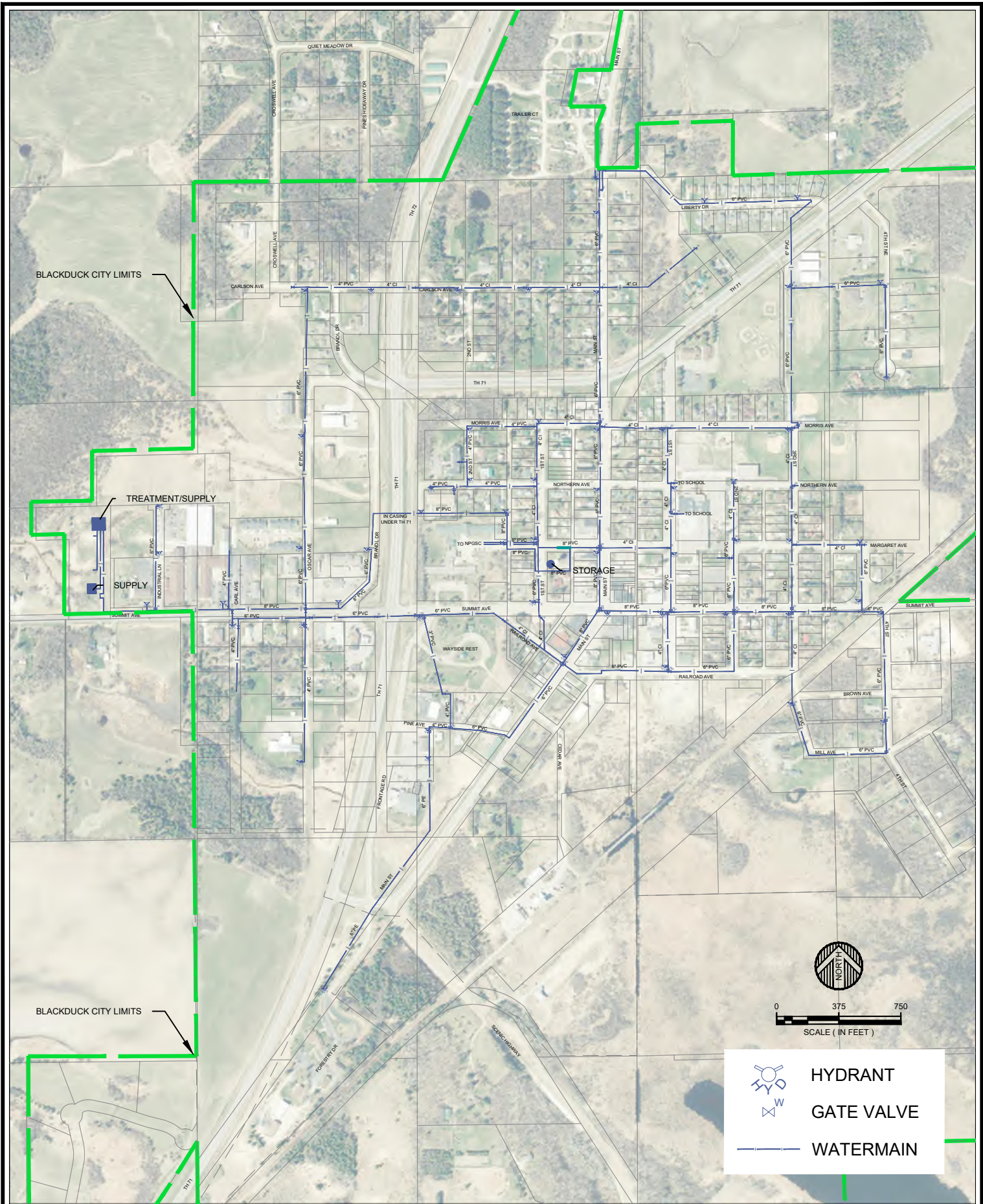
FORCE MAIN



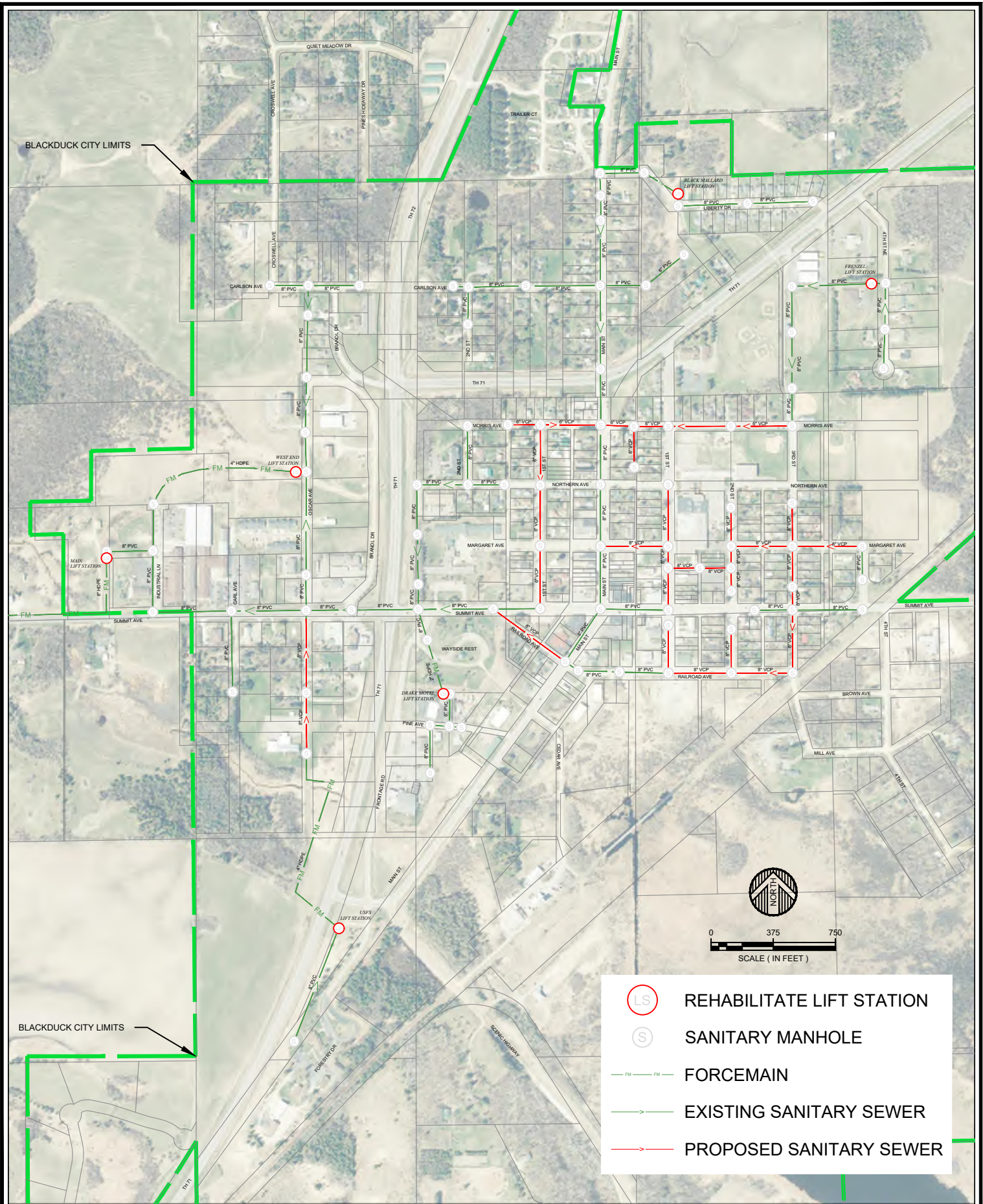
— FM — FM — FORCE MAIN

DATE	REV#	REVISIONS DESCRIPTION	BY

DATE:	MONTH DAY, YEAR
SCALE:	AS SHOWN
DRAWN BY:	MOD
CHECKED BY:	Y.Y.Y.
JOB NUMBER:	2020-10247



DATE	REV#	REVISIONS DESCRIPTION	BY	DATE	MONTH DAY YEAR

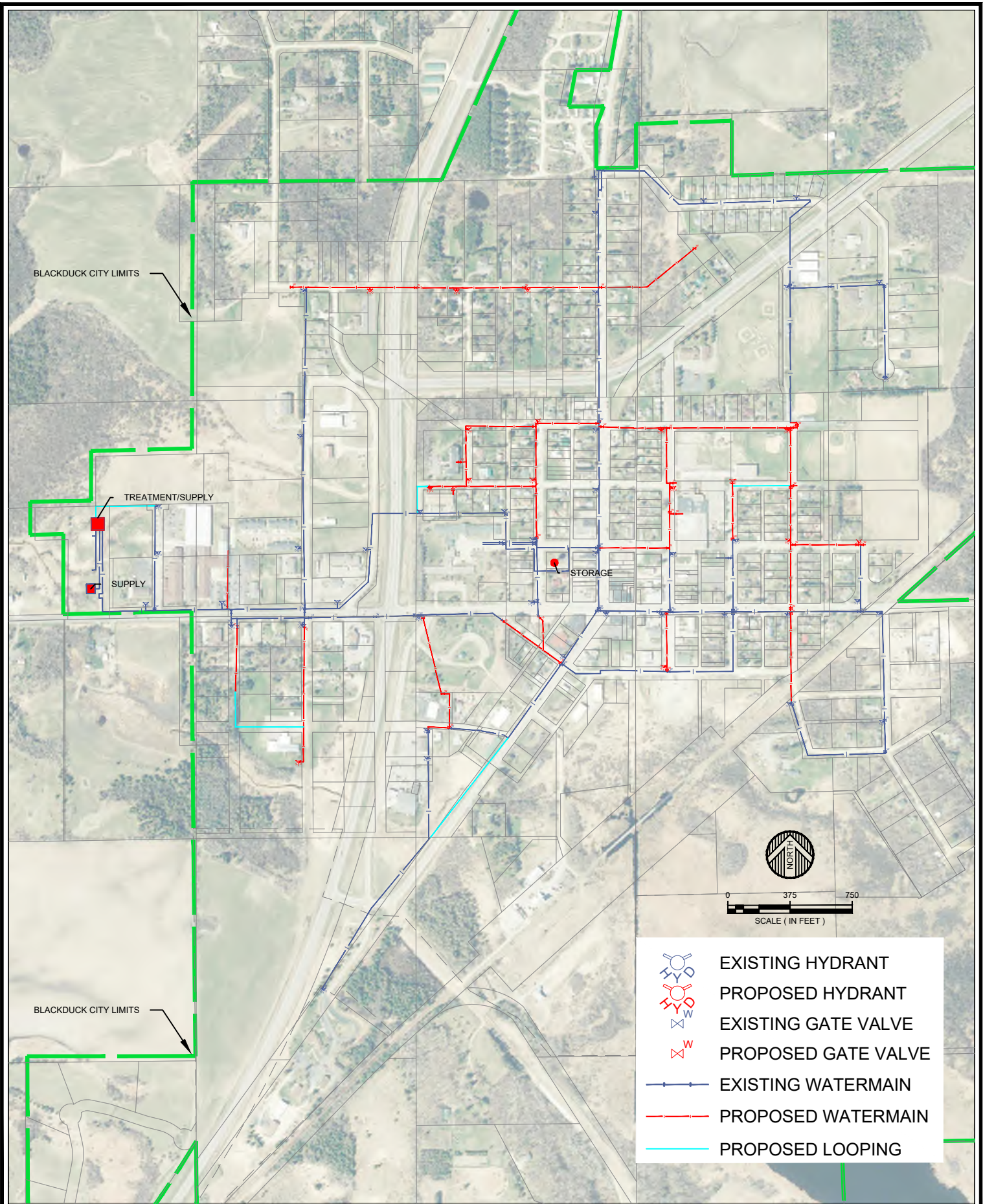









LS REHABILITATE LIFT STATION
S SANITARY MANHOLE
— FM — FM — FORCEMAIN
— > — > — EXISTING SANITARY SEWER
— > — > — PROPOSED SANITARY SEWER

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL DISCIPLINE UNDER THE LAWS OF THE STATE OF STATE
 DATE: _____ LIC. NO. _____

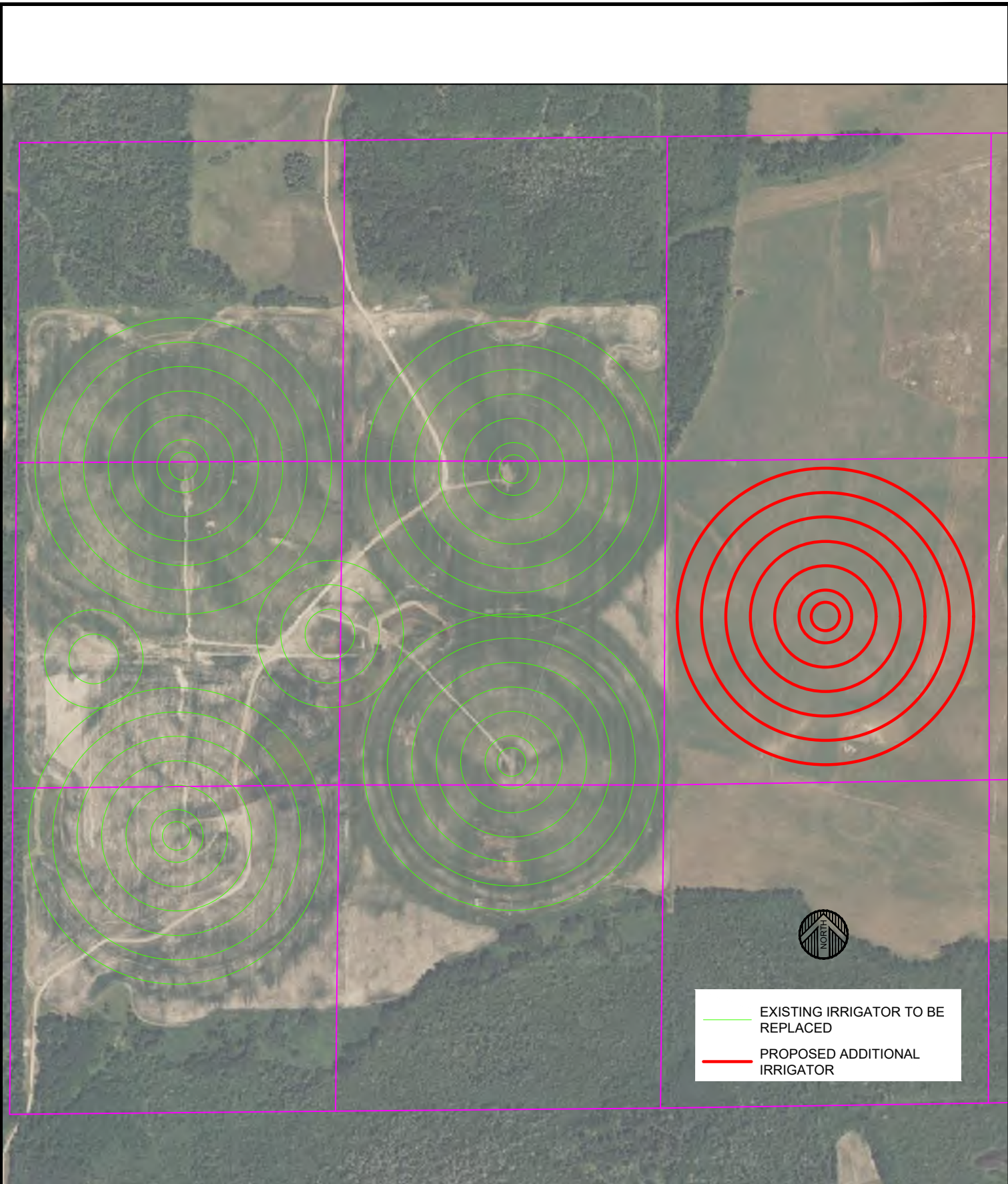
DATE	REV#	REVISIONS DESCRIPTION	BY

DATE: MONTH DAY, YEAR
 SCALE: AS SHOWN
 DRAWN BY: MDD
 CHECKED BY: Y.Y.Y.
 JOB NUMBER: 2020-10247



-  EXISTING HYDRANT
-  PROPOSED HYDRANT
-  EXISTING GATE VALVE
-  PROPOSED GATE VALVE
-  EXISTING WATERMAIN
-  PROPOSED WATERMAIN
-  PROPOSED LOOPING

DATE	REV#	REVISIONS DESCRIPTION	BY



 EXISTING IRRIGATOR TO BE REPLACED
 PROPOSED ADDITIONAL IRRIGATOR

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
 DATE: _____ LIC. NO. _____

DATE	REV#	REVISIONS DESCRIPTION	BY

DATE: _____ SCALE: AS SHOWN
 DRAWN BY: CJS
 CHECKED BY: Y.Y.Y
 JOB NUMBER: 2020-10247

City of Blackduck, MN 52023-0500-1047YACDC/Cur2020-10247 Irrigation E.dwg Plotted by Caleb Standa 3/5/2024 4:30:40 PM © 2024 WIDSETH SMITH MONTAG & ASSOCIATES, INC.

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APPENDIX B

WELL INSPECTION REPORTS

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THEIN WELL

WELLS - PUMPS
SALES - SERVICE

PO BOX 778 • 11355 HWY 71 NE • SPICER, MN 56288
102 DUNDAS RD • MONTICELLO, MN 55362
CLARA CITY, MN 56222 • VERMILLION, SD 57069
www.theinwell.com • E-mail: theinwell@tds.net

Since 1893

WELL INSPECTION REPORT

Customer: City of Blackduck Well Number: 5 IN PUMP HOUSE Unique #: 415804 Inspection Date: 7-16-2019

Both an early awareness of a reduction in the efficiency of your Well and a good preventive maintenance program are a necessity for you to avoid extensive down time, extreme rehabilitation expenses and a shortened life span for your well. The following three areas and seventeen items pertaining to your Well have been checked and are reported, where possible, as shown below.

Area and Item Inspected

I. Well Efficiency

		Condition	
		Good	Caution
A) Gallons Per Minute	130	X	
B) Static Water Level (water level when not pumping)	24.83	X	
C) Pumping Water Level	75.33	X	
D) Drawdown (P.W.L. - S.W.L.)	50.50	X	
E) Specific Capacity (G.P.M. / D.D.)	2.57	X	
F) Discharge pressure guage reading	to filter	X	

II. Submersible Pump Operation

A) Meg / OHMS							
B) Voltage	L1 to L2 243.00	L2 to L3 244.00	L1 to L3 241.00	X			
C) Amperage	L1 36.00	L2 32.00	L3 34.00	X			
D) Winding Resistance		0-0-0		X			
E) Insulation Resistance		00-00-00		X			
F) Pump bowl / TDH Condition							

III. General Operation

A) Production Rate of Well	X	
B) Effect From Other Wells	X	
C) History of Well	X	
D) Operating Hours of Well	X	
E) Other		

Comments

Inspected By: _____

Licensed, Bonded and Insured

CERTIFIED MASTER WATER WELL CONTRACTOR
Equal Opportunity Employer

MEMBER
NGWA

Page 101 of 236
AWWA

WELL SUMMARY

PROJECT BLACKDUCK CITY WELL Project #01-06-01997 MN Well #415804
 DRILLER DAVIDSON WELL COMPANY DATE 8-23-85

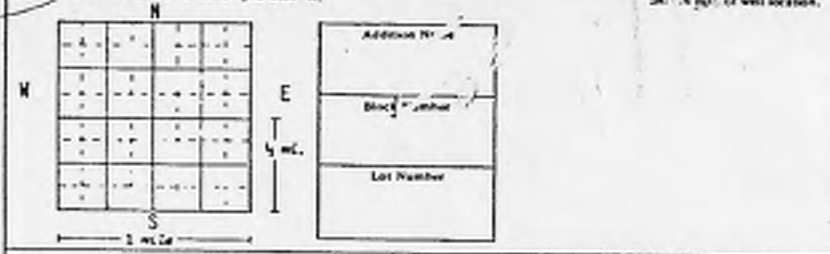
		WELL NUMBER	415804							NOTES
		DRILLED DEPTH	200							(BELOW GROUND)
		DEPTH TO STATIC WATER	15'							(BELOW GROUND)
CASING	SIZE	8" ID								From top of finished well to top of screen
	LENGTH	168'9"								
SCREEN	SIZE	8" Tele								(ENTER DEPTH BELOW GROUND) From top of finished well
	SLOT	.045								
	LENGTH	30'								
	DEPTH	198'9"								
		AVAILABLE DRAWDOWN	146"							(TO TOP OF WELL SCREEN)
PUMP TEST	CAPACITY (GPM)	170								
	DRAWDOWN	97.33								
	TRANSMISSIBILITY	5984 Gal per ft per day								
	TIME OF TEST	48 hrs								
RECHARGE	DRAWDOWN									
	TIME TO RECHARGE									
GRAVEL PACK	RADIUS	6"								
	GRADATION	American Materials #30								
		LENGTH OF TIME IN DEVELOPMENT	48hrs							
		DEPTH TO TOP OF PUMP	165'							

LOCATION SKETCH:

County Name: **Beltrami**
 Township Name: _____ Township Number: _____ Range Number: _____ Section No.: _____ Fraction: _____

3. PROPERTY OWNER'S NAME
City of Blackduck
 Address: **Blackduck, MN 56630**
 Project: **#06-01-01997** #5

Distance and Direction from Road Intersections or Street Address and City of Well Location



4. WELL DEPTH (completed) **191** ft. Date of Completion **8-23-85**

1. Cable tool Reverse Down Dig
 2. Hollow rod Air Bored _____
 Rotary Jammed Power Auger

5. USE
 Domestic Public Supply Industry
 Irrigation Municipal Commercial
 Test Well Air Conditioning _____

FORMATION LOG	COLOR	HARDNESS OF FORMATION	FROM	TO
Topsoil - Peat	Black	Soft	0	1
Clay	Dark	soft	1	2
Clay	Grey	Soft	2	40
Fine sand	Grey	Soft	40	46
Sand, gravel, coal Mud loss	Grey	Soft	46	75
Boulders	Grey	Hard	75	77
Clay - Stones	Grey	Firm	77	108
Sandy clay	Grey	Soft	108	112
Clay - stone	Grey	Firm	112	130
Sandy clay	Grey	Firm	130	150
Very sandy clay	Grey	Firm	150	160
Sand - silty Coarser with depth	Grey	Firm	160	175
Clay lense	Grey	Firm	175	177
Sand - silty	Grey	Firm	177	191
Clay	Grey	Hard	191	200

6. CASING
 Black Threaded _____
 Galv Welded _____
 8 in. to 161 ft. Weight 28.5 lb. ft. HOLE DIAM 12 in. to 191 ft.
 322 in. to wall ft. Weight _____ lb. ft. _____ in. to _____ ft. Weight _____ lb. ft.

7. SCREENS
 Make **Johnson** Or open hole from _____ ft. to _____ ft.
 Type **stainless** Dia. **8" tele**
 Slot/Screen **.045** Length **30'**
 Set between **161** ft. and **191** ft. from ground level
168.9 ft. and **189.9** ft. from top of finish well

8. STATIC WATER LEVEL
15 ft. below land surface above Date Measured **8-20-85**

9. PUMPING LEVEL (below land surface)
114 ft. after **36** hrs. pumping **170** g.p.m.
 _____ ft. after _____ hrs. pumping _____ g.p.m.

10. WELL HEAD COMPLETION
 Polys adapter Basement offset At least 12" above grade

11. Well grouted?
 Yes No C/C Vol. **1 3/4**
 High Cement Bestonite _____
 Depth: from **160** ft. to **surface** ft.
 from _____ ft. to _____ ft.

12. Nearest sources of possible contamination
 _____ feet _____ direction _____ ft. from
 Well protected upon completion? Yes No

13. PUMP
 Date installed **8-23-85**
 Not installed
 Manufacturer's Name **Fairbanks Morse**
 Model Number **6L6** HP **15** Volts **2203ph**
 Length of drop pipe **163** ft. capacity **170** g.p.m.
 Material of drop pipe **steel 3" black**
 Type: Submersible E.S. Turbine Reciprocating
 Jet Centrifugal _____

14. WATER WELL CONTRACTOR'S CERTIFICATION
 This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

DAVIDSON WELL COMPANY #57032
 Licensee Signature Name _____ License No. _____
 Address **Route #3, Thief River Falls, MN 56701**
 Signed *Orville Nelson* Date **8-23-85**
 Orville Nelson
 Name of Driller

15. REMARKS (USE FOR SPECIAL OR DATA, etc.)
 Well Gravel packed with #30 American material as recommended by Johnson Screen Company

WELL INSPECTION REPORT

Customer: City of Blackduck Well Number: #8 Replaced #7 North Unique #: 769253 Inspection Date: 7-16-2019

Both an early awareness of a reduction in the efficiency of your Well and a good preventive maintenance program are a necessity for you to avoid extensive down time, extreme rehabilitation expenses and a shortened life span for your well. The following three areas and seventeen items pertaining to your Well have been checked and are reported, where possible, as shown below.

Area and Item Inspected

I. Well Efficiency

		Condition	
		Good	Caution
A) Gallons Per Minute	196	X	
B) Static Water Level (water level when not pumping)	16.33	X	
C) Pumping Water Level	70.08	X	
D) Drawdown (P.W.L. - S.W.L.)	53.75	X	
E) Specific Capacity (G.P.M. / D.D.)	3.65	X	
F) Discharge pressure guage reading	to filter		

II. Submersible Pump Operation

A) Meg / OHMS								
B) Voltage	L1 to L2 498.00	L2 to L3 497.00	L1 to L3 495.00	X				
C) Amperage	L1 29.00	L2 28.00	L3 28.00	X				
D) Winding Resistance		0-0-0		X				
E) Insulation Resistance		00-00-00		X				
F) Pump bowl / TDH Condition								

III. General Operation

A) Production Rate of Well	X	
B) Effect From Other Wells	X	
C) History of Well	X	
D) Operating Hours of Well	X	
E) Other		

Comments

Inspected By: _____

Licensed, Bonded and Insured

CERTIFIED MASTER WATER WELL CONTRACTOR
Equal Opportunity Employer

WELL OR BORING LOCATION

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
Minnesota Statutes, Chapter 103JMINNESOTA UNIQUE WELL
AND BORING NO.

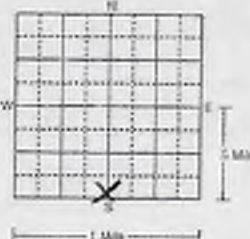
769253

County Name **Beltrami**Township Name **Hines** Township No. **149N** Range No. **31W** Section No. **12** Fraction **SE SE SW** WELL BORING DEPTH (completed) **215'** DATE WORK COMPLETED **12-11-08**

LOCATION: Latitude _____ degrees _____ minutes _____ seconds Longitude _____ degrees _____ minutes _____ seconds

House Number, Street Name, City, and Zip Code of Well Location _____ or File Number _____

Show exact location of well/boring in section grid with "X." Sketch map of well/boring location. Showing property lines, roads, buildings, and direction.



Sketch map of well/boring location. Showing property lines, roads, buildings, and direction.

Handwritten notes:
New well
Pumphouse
Access Rd
Co Hwy 30

DRILLING METHOD
 Cable Tool Auger
 Driven
 Rotary
 Dug
 JettedDRILLING FLUID **Bentonite-Water** From _____ ft. To _____ ft. WELL HYDROFRACTURED? Yes NoUSE
 Domestic
 Noncommunity PWS
 Community PWS
 Flooded
 Monitoring
 Erosion, Dike Hole
 Irrigation
 Dewatering
 Heating/Cooling
 Industry/Commercial
 RemedialCASING MATERIAL
 Steel
 Plastic
Drive Shoe? Yes No
 Threaded
 WeldedCASING DIAMETER
8" in. to 190 ft. 88.55 ft. Well Casing
HOLE DIAM.
in. to ft.
in. to ft.
in. to ft.

PROPERTY OWNER'S NAME/COMPANY NAME

City of Blackduck
PO Box 380
Blackduck MN 56630

SCREEN **Johnson** OPEN HOLE
Make **Stainless Steel** From **8"** ft. To _____ ft.
Type **High Flow** Diam. **8"**
Slot/Gauge **40** Length **85'**
Set between **190** ft. and **215** ft. FITTINGS **Welded**STATIC WATER LEVEL **2'** ft. Below Above land surface Date measured **12-11-08** Measured from **Ground Level**PUMPING LEVEL (below land surface) **121** ft. after **24** hrs. pumping **200** g.p.m.WELLHEAD COMPLETION
 Pilosa/adaptor manufacturer _____ Model _____
 Casing Protection _____ 2 ft. above grade
 All-grade (Environmental Well and Boring ONLY)GROUTING INFORMATION
Well grouted Yes No
Grout materials Neat cement Bentonite Concrete Other _____
From **0** To **180** ft. **45** Yds. Bags
From _____ To _____ ft. _____ Yds. Bags
From _____ To _____ ft. _____ Yds. Bags

GEOLOGICAL MATERIALS

NEAREST KNOWN SOURCE OF CONTAMINATION
100+ feet **SW** direction **lowland** typeWell disinfected upon completion? Yes NoPUMP
 Not installed Date installed **7/28/69**Manufacturer's name **Franklin Electric**Model Number **FPS 6" 150GPM 20** Volts **460V**
Length of drop pipe **140'** ft. Capacity **150** g.p.m.Type Submersible L.S. Turbine Reciprocating Jet ABANDONED WELLS
Does property have any not in use and not sealed well(s)? Yes NoVARIANCE
Was a variance granted from the MDH for this well? Yes NoWELL CONTRACTOR CERTIFICATION
This well was drilled under my supervision and in accordance with Minnesota Rules, Chapter 4725. The information contained in this report is true to the best of my knowledge.REMARKS: ELEVATION, SOURCE OF DATA, etc.
Use a second form if needed.

Boart Longyear Co **2022**
License Business Name Lic. or Reg. No.

Tom [Signature] **429** **1-15-09**
Certified Representative Signature Certified Rep. No. Date

Jack Thilquist
Name of Driller

IMPORTANT - FILE WITH PROPERTY PAPERS
WELL OWNER COPY **769253**

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APPENDIX C

ELEVATED WATER TANK INSPECTION REPORT

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WATER TANK INSPECTION REPORT

CITY OF BLACKDUCK, MN

09/28/2023



TANK NAME:	Blackduck, MN	LOCATION:	First St. NW
CAPACITY:	150,000 Gallons	STYLE:	Elevated
CONSTRUCTION STYLE:	Pedosphere	CONSTRUCTION DATE:	2003
BUILDER:	Caldwell Tanks	HEIGHT/DIMENSION:	104 Feet



EXTERIOR CONDITIONS



Exterior Conditions

Fair to poor condition. Top coat is breaking down to intermediate coat.



Exterior Conditions

Fair to poor condition with mold and mildew present at the belly of the tank. Exterior pressure wash was completed.



Exterior Conditions

Fair to poor condition. Small areas of paint failures present.



Name Plate

Name plate is intact and legible.

INTERIOR DRY CONDITIONS



Interior Conditions

Fair to poor condition. Flash rust is present in the dry tube.



Interior Conditions

Fair to poor condition. Rust and corrosion are present at the top platform.



Interior Conditions

Poor condition. Riser pipe insulation is falling apart beneath the top platform.



Interior Conditions

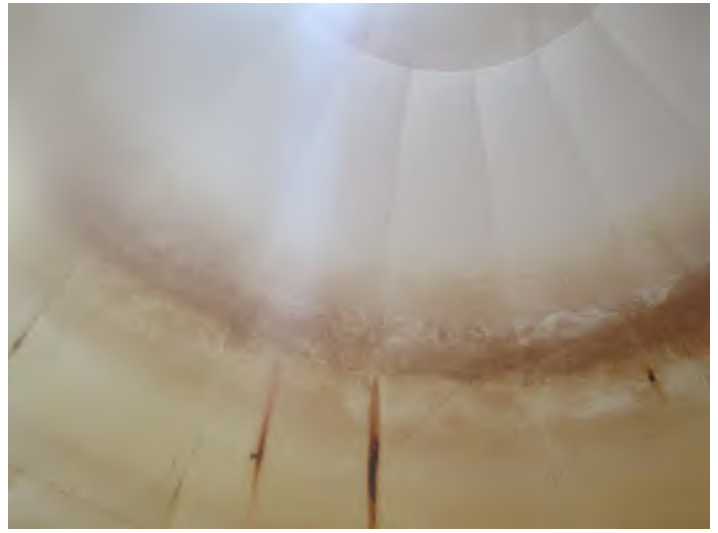
Fair to poor condition. Delamination is present at the first platform.

INTERIOR WET CONDITIONS



Interior Conditions

Drain clean was completed at the same time of inspection. View of sediment present prior to draining.



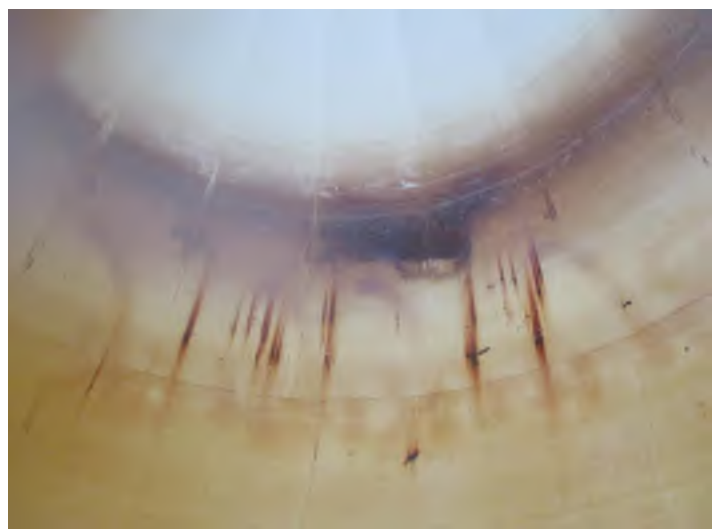
Interior Conditions

Fair to poor condition. Moderate to light staining present, along with areas of corrosion at the weld seams.



Interior Conditions

Moderate staining present on the column and ladder.



Interior Conditions

Fair to poor condition. Rust and corrosion present at the high-water line.

SAFETY CONDITIONS



Safety Climb

Round notch type safety climb is no longer compliant.



Tank Access

Tank access is proper size and configuration.

SANITARY CONDITIONS



Vent

Vent is secure and in good condition.



Overflow

Overflow is in good condition and routed to ground level. Screen is torn and not secure.

STRUCTURAL CONDITIONS



Foundations

Foundation and grout are in good condition, clear of vegetation.



Tower Structure

Tower structure is in good condition.

SECURITY CONDITIONS



Hatch

Roof man way is in good condition and secured.



Tower Access

Tower access was secure upon arrival and secure upon completion.

SUMMARY

Exterior:

Fair to poor condition. The exterior coatings have exceeded their life cycle. Recommend overcoating with a new urethane lining.

Interior Dry Area:

Fair to poor condition. Recommend epoxy touch-up in the dry tube and at the platforms. Also recommend replacing the fallen down paper, securing the insulation around the riser pipe, with all new tin and band.

Interior Wet Area:

Fair to poor condition with moderate staining and paint failures. Recommend relining with a new epoxy coatings system at the same time the exterior is painted.

Safety:

Recommend removing the old notch climbing device, and replacing with a new OSHA approved cable safety climbing device. Remove the notch climbing device from the interior wet ladder.

Sanitary:

The screen at the overflow is torn. Recommend replacing with a new #4 mesh screen.

Structural:

Tank and tower appear structurally sound.

Security:

Tank and tower were secure upon arrival and departure.



KYLE FISCHER

WATER TANK EXPERT

c: (605) 651-4318

w: (605) 334-9749

fischerk@maguirewater.com

INSPECTION AND EVALUATION METHODS

Applicable procedures were performed in the inspection of the water tank.

Methods

1. The inspection of the base metal and coatings on interior and exterior surfaces included only accessible areas without rigging or staging. When accessible, the base metal and coating on the interior wet surfaces were examined by an ROV (Remote Operated Vehicle) with the tower in service.
2. No structural analysis was done to determine if the tank design complies with the AWWA D100-11 Standard for "Welded Carbon Steel Tanks for Water Storage." However, any observed non-conformance to the AWWA D100-11 standard would be noted.
3. Compliance with OSHA regulations was part of this inspection, any unsafe conditions or violations of current OSHA regulation that were observed are noted in this report.

Examination and Evaluation Techniques

Applicable procedures were performed in the inspection of the water tank

The tank site was evaluated for proper drainage conditions affecting access and lead paint abatement during reconditioning. Also, the following site dimensions were obtained: distance to fence(s), power lines, owner buildings, public property, private property/buildings, school/playgrounds, public parks, and other property.

1. **Foundations:** A visual examination of the concrete foundation(s) was noted in the report. Visual examination included conditions of grout, cracks, spalling and elevation in regards to vegetation.
2. **Tank Plate Thickness:** Plate thickness measurements were not taken.
3. **Coating Thickness:** Interior and exterior coatings, where accessible, were tested in accordance with Steel Structures Painting Council SSPC-PA2 "Measurement of Dry Film Thickness with Magnetic Gages".
4. **Coating Adhesion:** Adhesion testing of the coating to the steel was performed by ASTM D-3359: Shear Adhesion Test, Measuring Adhesion by Tape Test. In addition, subjective coating adhesion the evaluation was performed using a knife.

5. **Coating Cure:** The exterior of the coating was evaluated by ASTM D-5402-93 Standard Practice for Assessing the Solvent Resistance of Organic Coatings. While this process is typically used to test the cure of the interior lining, it can also be used to determine the generic coating type on the exterior of the tank.
6. **Coating Serviceability:** The estimated remaining coating life or serviceability evaluation was performed using a wide variety of inspection instruments such as dry film thickness gauge, knife, Tooke gauge, adhesion tester(s), 30x microscope and serviceability evaluation experience (minimum experience 10 years).
7. **Coating Lead and Chromium Content Analysis:** Samples have been taken of the exterior coatings to determine if lead and chromium are present.
8. **Coating Lead and Chromium Content Analysis:** Samples have been taken of the exterior coatings to determine if lead and chromium are present.

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APPENDIX D

ANNUAL WATER USAGE SUMMARY

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Appendix D - Annual Water Usage Summary

Year	Month	Total Days	Monthly Total (gal)	Daily Average (gpd)	Daily Maximum (gal)	Flushing Hydrant Daily Maximum (gal)
2024	January	31	1,810,000	58,388		
	February	28	1,631,000	58,250		
	March	31	1,644,000	53,033		
	April	30	1,568,000	52,267		
	May	31	1,654,000	53,355		
	June	30	1,609,000	53,634		
	July	31	1,589,000	51,259		
	August	31	1,721,000	55,517		
	September	30	1,884,000	62,800		
	October	31	1,844,000	59,484		
	November	30	1,808,000	60,267		
	December	31	2,300,000	74,194		
Annual Total and Average =			21,062,000	57,705	-	
2023	January	31	1,585,000	51,130		
	February	28	1,613,000	57,608		
	March	31	2,023,000	65,259		
	April	30	1,790,000	59,667		
	May	31	1,883,000	60,742		
	June	30	2,034,000	67,800		
	July	31	1,892,000	61,033		
	August	31	2,203,000	71,065		
	September	30	2,195,000	73,167		
	October	31	2,079,000	67,065		
	November	30	2,090,000	69,667		
	December	31	2,059,000	66,420		
Annual Total and Average =			23,446,000	64,236	-	
2022	January	31	1,595,000	51,452	86,000	
	February	28	1,642,000	58,643	101,000	
	March	31	1,675,000	54,033	87,000	
	April	30	1,613,000	53,767	146,000	
	May	31	1,714,000	55,291	75,000	
	June	30	1,708,000	56,934	115,000	115,000
	July	31	1,781,000	57,452	89,000	
	August	31	1,702,000	54,904	91,000	
	September	30	1,577,000	52,567	93,000	
	October	31	1,434,000	46,259	86,000	
	November	30	1,526,000	50,867	139,000	
	December	31	1,675,000	54,033	94,000	
Annual Total and Average =			19,642,000	53,814	146,000	

	January	31	1,649,000	53,194	63,000	
	February	28	1,593,000	56,893	68,000	
	March	31	1,727,000	55,710	63,000	
	April	30	1,592,000	53,067	77,000	
2	May	31	2,021,000	65,194	93,000	
0	June	30	2,212,000	73,734	192,000	192,000
2	July	31	2,276,000	73,420	89,000	
1	August	31	2,373,000	76,549	124,000	
	September	30	1,984,000	66,134	86,000	
	October	31	1,782,000	57,484	82,000	
	November	30	1,456,000	48,534	81,000	
	December	31	1,609,000	51,904	87,000	
Annual Total and Average =			22,274,000	61,025	192,000	
	January	31		-		
	February	29	1,659,000	57,207	96,000	
	March	31	1,772,000	57,162	70,000	
	April	30	1,858,000	61,934	75,000	
2	May	31	1,861,000	60,033	168,000	168,000
0	June	30	1,894,000	63,134	105,000	
2	July	31	2,109,000	68,033	110,000	
0	August	31	2,347,000	75,710	122,000	
	September	29	1,888,000	65,104	81,000	
	October	31	1,883,000	60,742	84,000	
	November	30	1,805,000	60,167	68,000	
	December	31	1,568,000	50,581	60,000	
Annual Total and Average =			20,644,000	61,809		
Year	Month	Total Days	Monthly Total (gal)	Daily Average (gpd)	Daily Maximum (gal)	Flushing Hydrant Daily Maximum (gal)
	January	31	1,821,000	58,742	99,000	
	February	28	1,603,000	57,250	89,000	
	March	31	1,791,000	57,775	83,000	
	April	30	1,526,000	50,867	89,000	
2	May	31	1,823,000	58,807	81,000	
0	June	30	1,820,000	60,667	92,000	
1	July	31	2,141,000	69,065	80,000	
9	August	31	1,816,000	58,581	76,000	
	September	30	1,603,000	53,434	79,000	
	October	31	1,655,000	53,388	88,000	
	November	30	1,453,000	48,434	72,000	
	December	31	1,611,000	51,968	63,000	
Annual Total and Average =			20,663,000	56,611	99,000	

	January	31	1,771,000	57,130	62,000
	February	28	1,486,000	53,072	62,000
	March	31	1,768,000	57,033	61,000
	April	30	1,695,000	56,500	61,000
2	May	31	1,827,000	58,936	87,000
0	June	30	1,876,000	60,517	99,000
1	July	31	1,987,000	64,097	76,000
8	August	31	1,907,000	61,517	77,000
	September	30	1,644,000	54,800	77,000
	October	31	1,662,000	53,613	82,000
	November	30	1,494,000	49,800	77,000
	December	31	1,612,000	52,000	68,000
Annual Total and Average =			20,729,000	56,792	99,000

Data Source: City Operator Daily Records

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APPENDIX E

DETAILED COST ESTIMATES

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Table 4-1 - Rehabilitate Water Treatment Facility and Wells

June 2025					
ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
1	Building Lighting System	EA	1	\$ 8,800.00	\$ 8,800.00
2	Chemical Room Improvements	LS	1	\$ 16,500.00	\$ 16,500.00
3	Building Exterior Improvements	LS	1	\$ 110,000.00	\$ 110,000.00
4	Painting (Walls, Doors, Piping, Steel, Etc.)	LS	1	\$ 33,000.00	\$ 33,000.00
5	Building Heating and Ventilation Systems	EA	1	\$ 33,000.00	\$ 33,000.00
6	Stationary Generator	EA	1	\$ 71,500.00	\$ 71,500.00
7	Remove Filtronics System	LS	1	\$ 82,500.00	\$ 82,500.00
8	Replace Filters, Media, Simulwash Backwash, Control Panel, Electric Valves, Backwash Blower, Facepiping	LS	1	\$ 495,000.00	\$ 495,000.00
9	Filter Installation	LS	1	\$ 82,500.00	\$ 82,500.00
10	Buired Concrete Backwash Tank		1	\$ 110,000.00	\$ 110,000.00
11	Process Piping	LS	1	\$ 88,000.00	\$ 88,000.00
12	Process Valves	LS	1	\$ 38,500.00	\$ 38,500.00
13	Chemical Feed Improvements	LS	1	\$ 132,000.00	\$ 132,000.00
14	VFDs For Well Pumps	LS	1	\$ 27,500.00	\$ 27,500.00
15	Pump For Backwash Tank	LS	1	\$ 16,500.00	\$ 16,500.00
16	Site Piping	LS	1	\$ 33,000.00	\$ 33,000.00
17	Building Addition For Chemical Feed System	LS	1	\$ 110,000.00	\$ 110,000.00
18	Controls	LS	1	\$ 137,500.00	\$ 137,500.00
19	Site Restoration	LS	1	\$ 27,500.00	\$ 27,500.00
20	Testing Equipment	LS	1	\$ 5,500.00	\$ 5,500.00
21	Cabinets	LS	1	\$ 11,000.00	\$ 11,000.00
22	Plumbing	LS	1	\$ 22,000.00	\$ 22,000.00
23	Rehab Wel #5 and Wellhouse	LS	1	\$ 82,500.00	\$ 82,500.00
24	Add Protection Around Well #8	LS	1	\$ 11,000.00	\$ 11,000.00
TOTAL ESTIMATED BASE CONSTRUCTION COST					\$ 1,785,300.00
MOBILIZATION, BONDING, INSURANCE AND PROJECT OVERHEAD					\$ 267,795.00
GENERAL EXPENSES AND EQUIPMENT RENTAL					\$ 249,942.00
CONSTRUCTION SUBTOTAL					\$ 2,303,037.00
CONTINGENCY (10%)					\$ 230,303.70
PRELIMINARY ENGINEERING					\$ 30,000.00
BASIC ENGINEERING					\$ 276,364.44
RESIDENT INSPECTION					\$ 184,242.96
ADDITIONAL ENGINEERING					\$ 5,000.00
CONSTRUCTION STAKING					\$ 3,000.00
EASEMENT DESCRIPTION					\$ 3,500.00
LABOR STANDARDS COMPLIANCE FOR SUPPLEMENTAL FUNDING					\$ 10,000.00
SOIL BORINGS FOR DESIGN					\$ 5,000.00
CONSTRUCTION MATERIAL TESTING					\$ 7,500.00
LEGAL, AND ADMINISTRATION					\$ 46,060.00
INTERIM FINANCING COSTS					\$ 115,150.00
TOAL ESTIMATED PROJECT COST =					\$ 3,219,158.10

Table 4-2 - New Water Treatment Plant

June 2025					
ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
GENERAL SITEWORK AND SITE PIPING					
1	SITE GRADING AND COMMON EXCAVATION	LS	1	\$ 20,000.00	\$ 20,000.00
2	6" EXTERIOR CONCRETE SLABS	SY	15	\$ 200.00	\$ 3,000.00
3	6" WATERMAIN	LF	200	\$ 75.00	\$ 15,000.00
4	6" GATE VALVES	EA	4	\$ 3,000.00	\$ 12,000.00
5	8" GATE VALVES	EA	4	\$ 4,000.00	\$ 16,000.00
6	HYDRANT	EA	2	\$ 7,500.00	\$ 15,000.00
7	CONNECT TO EXISTING WATERMAIN	EA	1	\$ 2,000.00	\$ 2,000.00
8	FITTINGS	LB	500	\$ 15.00	\$ 7,500.00
9	6" SANITARY SEWER PIPE	LF	75	\$ 75.00	\$ 5,625.00
10	6" CLEANOUT ASSEMBLY	EA	1	\$ 1,000.00	\$ 1,000.00
11	CONNECT TO EXISTING SANITARY SEWER	EA	1	\$ 3,000.00	\$ 3,000.00
12	8" PVC BACKWASH TANK OVERFLOW PIPE	LF	50	\$ 75.00	\$ 3,750.00
13	BIOROLL	LF	200	\$ 5.00	\$ 1,000.00
14	SITE RESTORATION (TOPSOIL, SEEDING AND MULCHING)	LS	1	\$ 10,000.00	\$ 10,000.00
15	SITE WORK	LS	1	\$ 10,000.00	\$ 10,000.00
ESTIMATED SUBTOTAL =					\$ 124,900.00
WATER TREATMENT FACILITY BUILDING					
1	BELOW GRADE CONCRETE WALLS (FILTER TANK)	CY	26	\$ 1,955.00	\$ 50,830.00
2	12" CONCRETE FLOOR (FILTER TANK)	CY	18	\$ 1,725.00	\$ 31,050.00
3	12" CONCRETE BUILDING FOOTING	CY	17	\$ 1,725.00	\$ 29,325.00
4	6" CONCRETE FLOOR (BUILDING)	CY	39	\$ 1,955.00	\$ 76,245.00
5	12" CONCRETE EQUIPMENT PAD	CY	5	\$ 1,840.00	\$ 9,200.00
6	BUILDING FOUNDATION WALLS	SF	960	\$ 32.20	\$ 30,912.00
7	8" CMU BUILDING WALLS	SF	2,975	\$ 33.60	\$ 99,960.00
8	TRUSSES, ROOFING & LINER PANEL	SF	2,600	\$ 60.00	\$ 156,000.00
9	3" RIGID INSULATION	SF	2,975	\$ 11.50	\$ 34,212.50
10	STEEL SIDING	SF	2,975	\$ 18.00	\$ 53,550.00
11	PEDESTRIAN DOOR (INCLUDING HARDWARE & FRAME)	EA	6	\$ 4,000.00	\$ 24,000.00
12	OVERHEAD DOOR (INCLUDING HARDWARE AND RAILS)	EA	1	\$ 10,000.00	\$ 10,000.00
13	WINDOW	EA	4	\$ 3,600.00	\$ 14,400.00
14	CARPENTRY, CASEWORK, ETC	LS	1	\$ 20,400.00	\$ 20,400.00
15	ELECTRICAL SERVICE & MOTOR CONTROL CENTER	EA	1	\$ 116,250.00	\$ 79,000.00
16	POTABLE WATER PLUMBING	LS	1	\$ 25,200.00	\$ 25,200.00
17	BUILDING LIGHTING SYSTEM	EA	1	\$ 5,625.00	\$ 5,625.00
18	PROCESS ELECTRICAL AND CONTROLS	EA	1	\$ 113,500.00	\$ 113,500.00
19	PAINTING (WALLS, DOORS, PIPING, STEEL, ETC.)	LS	1	\$ 21,850.00	\$ 21,850.00
20	FIRE EXTINGUISHERS	EA	1	\$ 540.00	\$ 540.00
21	SPECIALTY SIGNS	EA	5	\$ 36.00	\$ 180.00
22	DEHUMIDIFIER	EA	1	\$ 4,800.00	\$ 4,800.00
23	BUILDING HEATING AND VENTILATION SYSTEMS	EA	1	\$ 28,400.00	\$ 28,400.00
24	GENERATOR	EA	1	\$ 50,000.00	\$ 50,000.00
ESTIMATED SUBTOTAL =					\$ 969,200.00
PROCESS EQUIPMENT					
1	FILTER	EA	1	\$ 600,000.00	\$ 600,000.00
2	DETENTION TANK	EA	1	\$ 180,000.00	\$ 180,000.00
3	FILTER & DETENTION TANK INSTALLATION	EA	1	\$ 35,000.00	\$ 35,000.00
4	PROCESS PIPING	LS	1	\$ 87,500.00	\$ 87,500.00
5	AERATOR DUCT	EA	1	\$ 5,760.00	\$ 5,760.00
6	CHEMICAL FEED SYSTEM	EA	1	\$ 150,000.00	\$ 150,000.00
7	EYEWASH AND WATER HEATER	EA	1	\$ 11,400.00	\$ 11,400.00
8	FLOW METERS (2 WELL AND 1 BACKWASH)	EA	3	\$ 5,000.00	\$ 15,000.00
9	CHECK VALVES	EA	3	\$ 1,875.00	\$ 5,625.00
10	BACKWASH WASTE PUMP (INCLUDING FLOATS AND BASE)	EA	1	\$ 4,500.00	\$ 4,500.00
11	BACKWASH RECYCLE LINE FLOW METER	EA	1	\$ 800.00	\$ 800.00
12	PROCESS VALVES	EA	10	\$ 2,500.00	\$ 25,000.00
13	VENT PIPE	EA	1	\$ 1,200.00	\$ 1,200.00
14	AIR RELEASE VALVE	EA	2	\$ 1,800.00	\$ 3,600.00
15	SLEEVE FOR FLOOR	EA	3	\$ 1,200.00	\$ 3,600.00
ESTIMATED SUBTOTAL =					\$ 1,129,000.00
ESTIMATED BASE CONSTRUCTION COST					\$ 2,223,100.00
MOBILIZATION, BONDING, INSURANCE AND PROJECT OVERHEAD					\$ 333,500.00
GENERAL EXPENSES AND EQUIPMENT RENTAL					\$ 400,200.00
FUEL FOR EQUIPMENT, TRUCKS					\$ 32,000.00
ESTIMATED TOTAL CONSTRUCTION					\$ 2,988,800.00
10% CONTINGENCY					\$ 298,880.00
PRELIMINARY ENGINEERING					\$ 40,000.00
BASIC ENGINEERING					\$ 313,800.00
RESIDENT INSPECTION					\$ 282,400.00
ADDITIONAL ENGINEERING					
CONSTRUCTION STAKING					\$ 5,000.00
OPERATION & MAINTENANCE MANUAL					\$ 3,000.00
LEGAL, FISCAL AND ADMINISTRATION					\$ 65,753.60
INTERIM FINANCING					\$ 104,608.00
TOTAL ESTIMATED PROJECT COST =					\$ 4,102,241.60

Table 4-3 - Elevated Water Storage Tank Improvements					
June	2025				
ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
1	Existing EWST Rehabilitation	LS	1	\$ 302,500.00	\$ 302,500.00
2	Electric Gear Drive Stainless Mixer	LS	1	\$ 27,500.00	\$ 27,500.00
	CONSTRUCTION SUBTOTAL				\$ 330,000.00
	CONTINGENCY (10%)				\$ 33,000.00
	PRELIMINARY ENGINEERING				\$ 12,000.00
	BASIC ENGINEERING				\$ 26,400.00
	RESIDENT INSPECTION				\$ 39,600.00
	ADDITIONAL ENGINEERING				\$ 7,500.00
	<i>CONSTRUCTION STAKING</i>				\$ -
	<i>EASEMENT DESCRIPTION</i>				\$ -
	LABOR STANDARDS COMPLIANCE FOR SUPPLEMENTAL FUNDING				\$ 6,600.00
	SOIL BORINGS FOR DESIGN				\$ -
	CONSTRUCTION MATERIAL TESTING				\$ 2,000.00
	LEGAL, FISCAL AND ADMINISTRATION				\$ 7,260.00
	INTERIM FINANCING				\$ 16,250.00
				TOTAL ESTIMATED PROJECT COST =	\$ 480,610.00

TABLE 4-4 - WATER DISTRIBUTION SYSTEM IMPROVEMENTS					
June	2025				
ITEM	ITEM DESCRIPTION	UNIT	QUANTITIY	UNIT PRICE	AMOUNT
1	Mobilization	LS	1	\$ 330,000.00	\$ 330,000.00
2	Traffic Control	LS	1	\$ 27,500.00	\$ 27,500.00
3	Temporary Erosion Control	LS	1	\$ 11,000.00	\$ 11,000.00
4	Remove Hydrant	Each	24	\$ 1,100.00	\$ 26,400.00
5	Remove Gate Valve & Box	Each	46	\$ 522.50	\$ 24,035.00
6	Remove Curb & Gutter	LF	7816	\$ 5.50	\$ 42,986.43
7	Remove Bituminous Pavement	SY	21162	\$ 4.40	\$ 93,113.78
8	Remove Concrete Walk	SF	1023	\$ 1.10	\$ 1,125.30
9	Common Excavation (18" depth)	CY	10581	\$ 17.60	\$ 186,227.56
10	Common Excavation (12" depth)	CY	1731	\$ 16.50	\$ 28,560.28
11	Aggregate Base (CV) Class 5 (14" Depth)	CY	8253	\$ 44.00	\$ 363,143.73
12	Aggregate Base (CV) Class 5 (8" Depth)	CY	1246	\$ 44.00	\$ 54,810.96
13	Bituminous Material for Tack Coat	Gal	1973	\$ 1.10	\$ 2,170.54
14	Type SP 9.5 Wearing Course Mixture (3,B)	Ton	2434	\$ 132.00	\$ 321,243.12
15	Type SP 9.5 Non Wear Course Mixture (3,B)	Ton	2434	\$ 132.00	\$ 321,242.53
16	Aggregate Surfacing (CV) Class 5 (4" Depth)	CY	488	\$ 55.00	\$ 26,832.67
17	4" Concrete Walk	SF	39079	\$ 11.00	\$ 429,864.29
18	Concrete Curb & Gutter Design B618	LF	8151	\$ 38.50	\$ 313,802.50
19	Turf Establishment	LS	1	\$ 33,000.00	\$ 33,000.00
20	6" Watermain	LF	16000	\$ 82.50	\$ 1,320,000.00
21	1" Water Service Pipe	LF	916	\$ 38.50	\$ 35,250.60
22	6" Gate Valve & Box	Each	46	\$ 2,970.00	\$ 136,620.00
23	1" Corporation Stop	Each	100	\$ 660.00	\$ 66,000.00
24	2" Corporation Stop	Each	1	\$ 770.00	\$ 770.00
25	1" Curb Stop & Box	Each	100	\$ 825.00	\$ 82,500.00
26	2" Curb Stop & Box	Each	0	\$ 1,100.00	\$ -
27	Hydrant (9.5' Bury)	Each	24	\$ 8,250.00	\$ 198,000.00
28	Ductile Iron Fittings (AWWA C153)	Lbs	4974	\$ 16.50	\$ 82,075.13
29	Connect to Existing Watermain	Each	13	\$ 2,200.00	\$ 28,600.00
30	Dewatering	LS	1	\$ 110,000.00	\$ 110,000.00
31	Temporary Water Service	LS	1	\$ 110,000.00	\$ 110,000.00
	CONSTRUCTION SUBTOTAL				\$ 4,806,874.41
	CONTINGENCY (10%)				\$ 480,687.44
	PRELIMINARY ENGINEERING				\$ 40,000.00
	BASIC ENGINEERING				\$ 480,687.44
	RESIDENT INSPECTION				\$ 528,756.18
	ADDITIONAL ENGINEERING				\$ 12,000.00
	CONSTRUCTION STAKING				\$ 20,000.00
	EASEMENT DESCRIPTION				\$ 10,000.00
	LABOR STANDARDS COMPLIANCE FOR SUPPLEMENTAL FUNDING				\$ 15,000.00
	SOIL BORINGS FOR DESIGN				\$ 5,000.00
	CONSTRUCTION MATERIAL TESTING				\$ 5,000.00
	LEGAL, FISCAL AND ADMINISTRATION				\$ 105,751.24
	INTERIM FINANCING				\$ 227,840.00
				TOTAL ESTIMATED PROJECT COST =	\$ 6,737,596.71

Table 4-7 -WWTF Improvements					
June	2025				
ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
Pump System Improvements					
1	Mobilization	LS	1	33,000.00	\$ 33,000.00
2	Temporary Erosion Control	LS	1	5,500.00	\$ 5,500.00
3	Remove Existing Piping	LS	1	3,300.00	\$ 3,300.00
4	Repair Existing Concrete Slab	LS	1	3,300.00	\$ 3,300.00
5	Disposal Fees	LS	1	3,850.00	\$ 3,850.00
6	8" x 6" Pipe Fittings	LS	1	7,700.00	\$ 7,700.00
7	8" x 6" Pipe Check Valves	LS	1	8,250.00	\$ 8,250.00
8	8" x 6" Pipe Plug Valves	LS	1	7,150.00	\$ 7,150.00
9	6" Magnetic Flow Meter	LS	1	11,000.00	\$ 11,000.00
10	8" Magnetic Flow Meter	LS	1	16,500.00	\$ 16,500.00
11	2" air/vacuum Release	LS	1	7,150.00	\$ 7,150.00
12	12" Flange to Existing	LS	1	4,400.00	\$ 4,400.00
13	Pipe Supports and Accessories	LS	1	4,400.00	\$ 4,400.00
14	8" x 6" Pipe Spool Sections	LS	1	5,500.00	\$ 5,500.00
15	New Pressure Switch System	LS	1	7,150.00	\$ 7,150.00
16	Field Painting	LS	1	6,600.00	\$ 6,600.00
17	General Site Restoration	LS	1	5,500.00	\$ 5,500.00
18	Replace 100 Hp Pump	LS	1	110,000.00	\$ 110,000.00
19	Replace 50 hp Pump	LS	1	71,500.00	\$ 71,500.00
ESTIMATED SUBTOTAL =					\$ 321,750.00
Wastewater Stabilization Pond Improvements					
1	Install Riprap Higher on Embankment Slope Above Existing Riprap	CY	2,500.00	90.00	\$ 225,000.00
2	Rehabilitate Control Structures	EA	2.00	75,000.00	\$ 150,000.00
ESTIMATED SUBTOTAL =					\$ 375,000.00
Irrigation System Improvements					
1	Mobilization	LS	1.00	55,000.00	\$ 55,000.00
2	Install Center Pivot Irrigator	EA	5.00	96,800.00	\$ 484,000.00
3	Solid Set Irrigation Gun	EA	2.00	302,500.00	\$ 605,000.00
4	Standard Tower Control Box	EA	18.00	1,100.00	\$ 19,800.00
5	Field Basic Control Panel	EA	4.00	7,700.00	\$ 30,800.00
6	8" x 6" Pipe Fittings	LS	1.00	7,700.00	\$ 7,700.00
7	Field Vision with Position Upgrades	ea	4.00	3,300.00	\$ 13,200.00
8	Electrical	LS	1.00	8,800.00	\$ 8,800.00
9	10" Piping	LF	1,500.00	110.00	\$ 165,000.00
10	10" Gate Valve and Box	EA	4.00	6,600.00	\$ 26,400.00
11	Connect To Existing Watermain	EA	1.00	2,750.00	\$ 2,750.00
ESTIMATED SUBTOTAL =					\$ 1,418,450.00
					\$ 120,000.00
40 ACRE PROPERTY PURCHASE					\$ 60,000.00
40 ACRE PARCEL PATTERN DRAINTILE INSTALLATION					
CONSTRUCTION SUBTOTAL					\$ 2,295,200.00
CONTINGENCY (10%)					\$ 229,520.00
PRELIMINARY ENGINEERING					\$ 15,000.00
BASIC ENGINEERING					\$ 229,520.00
RESIDENT INSPECTION					\$ 229,520.00
ADDITIONAL ENGINEERING					\$ 10,000.00
CONSTRUCTION STAKING					\$ 7,500.00
EASEMENT DESCRIPTIONS					\$ 10,000.00
LABOR STANDARDS COMPLIANCE FOR SUPPLEMENTAL FUNDING					\$ 12,000.00
SOIL BORINGS FOR DESIGN					\$ 10,000.00
CONSTRUCTION MATERIAL TESTING					\$ 7,500.00
LEGAL, FISCAL AND ADMINISTRATION					\$ 50,490.00
INTERIM FINANCING					\$ 108,720.00
TOTAL ESTIMATED PROJECT COST =					\$ 3,214,970.00

TABLE 5-1 - COST SUMMARY WATER SYSTEM				
June 2025				
	PROPOSED WATER PROJECT			
	WATER TREATMENT FACILITY REHABILITATION	WATER DISTRIBUTION SYSTEM IMPROVEMENTS	ELEVATED WATER STORAGE TANK REHABILITATION	MUNICIPAL WELL IMP., REHAB WATER TREATMENT FACILITY, WATER DIST. SYSTEM IMP., REHAB ELEVATED STORAGE TANK
CONSTRUCTION SUBTOTAL	\$ 2,303,037.00	\$ 4,806,874.41	\$ 330,000.00	\$ 7,439,911.41
CONTINGENCY (10%)	\$ 230,303.70	\$ 480,687.44	\$ 33,000.00	\$ 743,991.14
PRELIMINARY ENGINEERING	\$ 30,000.00	\$ 40,000.00	\$ 12,000.00	\$ 82,000.00
	\$ -		\$ -	
BASIC ENGINEERING	\$ 276,364.44	\$ 480,687.44	\$ 26,400.00	\$ 783,451.88
RESIDENT INSPECTION	\$ 184,242.96	\$ 528,756.18	\$ 39,600.00	\$ 752,599.14
ADDITIONAL ENGINEERING	\$ 5,000.00	\$ 12,000.00	\$ 7,500.00	\$ 24,500.00
<i>CONSTRUCTION STAKING</i>	\$ 3,000.00	\$ 20,000.00	\$ -	\$ 23,000.00
<i>EASEMENT DESCRIPTION</i>	\$ 3,500.00	\$ 10,000.00	\$ -	\$ 13,500.00
	\$ -	\$ -	\$ -	
LABOR STANDARDS COMPLIANCE FOR SUPPLEMENTAL FUNDING	\$ 10,000.00	\$ 15,000.00	\$ 6,600.00	\$ 31,600.00
SOIL BORINGS FOR DESIGN	\$ 5,000.00	\$ 5,000.00	\$ -	\$ 10,000.00
CONSTRUCTION MATERIAL TESTING	\$ 7,500.00	\$ 5,000.00	\$ 2,000.00	\$ 14,500.00
LEGAL, FISCAL AND ADMINISTRATION	\$ 46,060.00	\$ 105,751.24	\$ 7,260.00	\$ 159,071.24
INTERIM FINANCING	\$ 115,150.00	\$ 227,840.00	\$ 16,250.00	\$ 359,240.00
Water System Subtotal =	\$ 3,219,158.10	\$ 6,737,596.71	\$ 480,610.00	\$ 10,437,364.81

Table 5-2 - Estimated 20 Year Salvage Value Summary			
June 2025			
Description	Water Treatment Facility Rehabilitation	150,000 Gallon Elevated Water Storage Tank	Water Distribution System Improvements
30 Year Items	\$ 85,430.00	\$ -	\$ -
50 Year Items		\$ -	\$ 755,900.00
75 Year Items	\$ -	\$ -	\$ -
Est. Total 20 Year Salvage Value =	\$ 85,430.00	\$ -	\$ 755,900.00

Table 5-3 - Estimated Annual Water System Operating Cost					
June 2025					
<i>Operation and Maintenance</i>					
Description					Annual Cost
Personnel Services					\$ 136,000.00
Utilities - Telephone, Internet & Electric					\$ 16,000.00
Supplies and Materials					\$ 13,000.00
General Maintenance & Repairs					\$ 10,000.00
Contracted Services					\$ 10,000.00
Insurance					\$ 9,000.00
Depreciation and Amortization					\$ -
Other Expenses					\$ 20,000.00
				Total Annual O and M =	\$ 214,000.00
<i>Short Lived Asset Reserve</i>					
Description	Quantity	Unit Value	Total Value	Life Expectancy (Yr)	Annual Cost
Chemical Feed Pumps	5	\$2,500.00	\$12,500.00	8	\$ 1,560.00
Well Pumps	2	\$10,000.00	\$20,000.00	15	\$ 1,330.00
High Service Pumps	0	\$0.00	\$0.00	15	\$ -
Flow Meters	4	\$3,200.00	\$12,800.00	15	\$ 850.00
Filter Media	1	\$15,000.00	\$15,000.00	15	\$ 1,000.00
Air Wash Blower	1	\$18,000.00	\$18,000.00	15	\$ 1,200.00
WTF Generator	1	\$50,000.00	\$50,000.00	15	\$ 3,330.00
EWST Inspection	1	\$4,000.00	\$4,000.00	5	\$ 800.00
EWST Coating Repair	1	\$75,000.00	\$75,000.00	15	\$ 5,000.00
				Total Annual Short Lived Asset Reserve =	\$ 15,070.00
<i>Debt Repayment</i>					
Description				Estimated Total	Annual Cost
Existing Debt	\$	705,915.00			
PW/PS FACILITY DEBT	\$	603,867.00			
Proposed Debt (Assume 40 yrs @ 3.5%)				\$10,437,364.81	\$ 488,780.00
Debt Service Reserve (5% of Proposed Debt)					\$ 24,440.00
				Total Annual Debt Repayment =	\$ 513,220.00
				Total Estimated Annual Municipal Water System Operating Cost =	\$ 742,290.00

Table 5-4 - Estimated Present Worth Summary @ 1.7% Real Discount Rate		Proposed Project Combinations	
June 2025		MUNICIPAL WELL IMP., WATER TREATMENT FACILITY, WATER DIST. SYSTEM IMP., ELEVATED STORAGE TANK, WATER METERS	
Description			
TOTAL ESTIMATED PROJECT COST			\$ 10,437,364.81
<u>ADD PRESENT WORTH OF ANNUAL O & M</u>			
ANNUAL O, M & R COSTS		\$ 229,070.00	
PRESENT WORTH OF O, M & R COSTS OVER 20 YEAR DESIGN LIFE	16.842		\$ 3,857,996.94
<u>SUBTRACT TOTAL 20 YEAR SALVAGE VALUE</u>			
20 YEAR SALVAGE VALUE		\$ 841,330.00	
PRESENT VALUE OF 20 YEAR SALVAGE VALUE	0.673		\$ 566,215.09
		ESTIMATED TOTAL PRESENT WORTH =	\$ 13,729,146.66

TABLE 5-5 - COST SUMMARY SANITARY SEWER SYSTEM					
June 2025					
DESCRIPTION	SANITARY SEWER SYSTEM IMPROVEMENTS				
	INDIVIDUAL PROPOSED COMPONENTS				PROPOSED WW PROJECT
	SANITARY SEWER COLLECTION IMPROVEMENTS	PUMP STATION IMPROVEMENTS	WWTF PUMP SYSTEM AND IRRIGATION UPGRADES	CIPP COLLECTION IMPROVEMENTS	
CONSTRUCTION SUBTOTAL	\$ 3,020,790.00	\$ 865,900.00	\$ 2,295,200.00	\$ 1,119,310.00	\$ 6,181,890.00
CONTINGENCY (10%)	\$ 302,080.00	\$ 86,590.00	\$ 229,520.00	\$ 111,931.00	\$ 618,190.00
PRELIMINARY ENGINEERING	\$ 30,000.00	\$ 15,000.00	\$ 15,000.00	\$ 10,000.00	\$ 60,000.00
BASIC ENGINEERING	\$ 302,079.00	\$ 86,590.00	\$ 229,520.00	\$ 95,100.00	\$ 618,189.00
RESIDENT INSPECTION	\$ 302,079.00	\$ 86,590.00	\$ 229,520.00	\$ 89,544.80	\$ 618,189.00
ADDITIONAL ENGINEERING	\$ 10,000.00	\$ 7,500.00	\$ 10,000.00	\$ 10,000.00	\$ 27,500.00
CONSTRUCTION STAKING	\$ 30,000.00	\$ 2,500.00	\$ 7,500.00	\$ 5,000.00	\$ 40,000.00
EASEMENT DESCRIPTION	\$ 10,000.00	\$ -	\$ 10,000.00	\$ -	\$ 20,000.00
LABOR STANDARDS COMPLIANCE FOR SUPPLEMENTAL FUNDING	\$ 12,500.00	\$ 8,500.00	\$ 12,000.00	\$ 12,000.00	\$ 33,000.00
SOIL BORINGS FOR DESIGN	\$ 5,000.00	\$ -	\$ 10,000.00	\$ 5,000.00	\$ 15,000.00
CONSTRUCTION MATERIAL TESTING	\$ 6,000.00	\$ 3,500.00	\$ 7,500.00	\$ 24,620.00	\$ 17,000.00
LEGAL, FISCAL AND ADMINISTRATION	\$ 66,460.00	\$ 19,050.00	\$ 50,490.00	\$ 24,620.00	\$ 136,000.00
INTERIM FINANCING	\$ 143,390.00	\$ 41,360.00	\$ 108,720.00	\$ 51,890.00	\$ 293,470.00
Sanitary Sewer System	\$ 4,240,380.00	\$ 1,223,080.00	\$ 3,214,970.00	\$ 1,559,015.80	\$ 8,678,428.00

TABLE 5-6 ESTIMATED 20 YEAR SALVAGE VALUE			
June 2025			
DESCRIPTION	INDIVIDUAL COMPONENTS		PROPOSED PROJECT
	SANITARY SEWER COLLECTION SYSTEM IMPROVEMENTS	WWTF PUMP SYSTEM AND IRRIGATION UPGRADES	SANITARY SEWER COLLECTION SYSTEM + WWTF + IRRIGATION IMPROVEMENTS
30 YEAR ITEMS	\$ -	\$ -	\$ -
40 YEAR ITEMS	\$ -		
50 YEAR ITEMS	\$ 983,768.61	\$ -	\$ 772,301.10
TOTAL 20 YR SALVAGE VALUE =	\$ 983,768.61	\$ -	\$ 772,301.10

Table 5-7- Estimated Annual Wastewater System Operating Cost					
June 2025					
<i>Operation and Maintenance</i>					
Description					Annual Cost
Personnel Services					\$139,400
Utilities					\$27,500
Supplies and Materials					\$10,000
Repairs and Maintenance					\$12,600
Contracted Services					\$7,800
Insurance					\$12,000
Depreciation and Amortization					\$0
Other Expenses					\$9,000
				Total Annual O and M =	\$ 218,300.00
<i>Short Lived Asset Reserve</i>					
Description	Quantity	Unit Value	Total Value	Life Expectancy (Yr)	Annual Cost
Main Pump Station	2	\$21,000	\$42,000	15	\$2,800
Frenzel Pump Station	2	\$4,500	\$9,000	15	\$600
Forestry Pump Station	2	\$7,500	\$15,000	15	\$1,000
Mallard Pump Station	2	\$7,000	\$14,000	15	\$930
West End Pump Station	2	\$6,800	\$13,600	15	\$910
Mill Avenue Pump Station	2	\$7,500	\$15,000	15	\$1,000
Effluent Pumps	2	\$4,500	\$9,000	15	\$600
Air Release Valves	2	\$2,000	\$4,000	15	\$270
			\$0		
Portable Generator	1	\$35,000	\$35,000	15	\$2,330
Irrigator Pump	2	\$30,000	\$60,000	15	\$4,000
			\$ -	15	\$ -
				Total Annual Short Lived Asset Reserve =	\$ 14,440.00
<i>Debt Repayment</i>					
Description				Estimated Total	Annual Cost
Existing Debt Payment					
Proposed Debt (Assume 40 yrs @ 3.5%)				\$8,678,428.00	\$ 406,410.00
Debt Service Reserve (5% of Proposed Debt)					\$ 20,320.00
				Total Annual Debt Repayment =	\$ 426,730.00
				Total Estimated Annual Municipal Waste Water System Operating Cost =	\$ 659,470.00

TABLE 5-8 ESTIMATED WASTEWATER SYSTEM PRESENT WORTH SUMMARY @ 0.5% DISCOUNT RATE			
June 2025		PROPOSED PROJECT COMBINATIONS	
DESCRIPTION	FACTOR	COLLECTION SYSTEM REPLACEMENT + WWTF + IRRIGATION	
ESTIMATED PRESENT TOTAL PROJECT COST			\$ 8,678,428.00
<u>ADD PRESENT WORTH OF ANNUAL O & M</u>			
ANNUAL O, M & R COSTS		\$ 232,740.00	
PRESENT WORTH OF O, M & R COSTS OVER 20 YEAR DESIGN LIFE	18.9874		\$ 4,419,130.00
<u>SUBTRACT TOTAL 20 YEAR SALVAGE VALUE</u>			
20 YEAR SALVAGE VALUE		\$ 772,301.10	
PRESENT 20 YEAR SALVAGE VALUE	0.9051		\$ 699,010.00
ESTIMATED TOTAL PRESENT WORTH =			\$ 12,398,548.00

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APPENDIX F

**2024 MDH PUBLIC WATER SUPPLY
INVENTORY REPORT**

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Protecting, maintaining and improving the health of all Minnesotans

January 17, 2025

Blackduck City Council
c/o Christina Regas, Administrator
Blackduck City Hall
P.O. Box 380
Blackduck, Minnesota 56630

Dear Council Members:

SUBJECT: Sanitary Survey Report for Blackduck Public Water System (PWS), Beltrami County, PWSID 1040014

Enclosed is a copy of the sanitary survey report summarizing an on-site inspection of your Community Public Water System. This report includes a review of the system's water source, facilities, equipment, operation, maintenance, and monitoring compliance for the purpose of evaluating the adequacy of the facilities for producing and distributing safe drinking water. Technical and management information regarding the operation of the system may also be provided. Conducting sanitary surveys on a regular basis is an important element in preventing contamination of drinking water supplies and in maintaining compliance with the National Primary Drinking Water Standards. Mike Schwanke was present during this inspection.

Please take appropriate action to address any deficiencies or recommendations identified within this report. A deficiency may lead to a contamination of the water supply or failure of the system to be in compliance with the Safe Drinking Water Act. The enclosed report must be kept on file and made available for public review for not less than ten (10) years.

The Minnesota Department of Health (MDH) continues to monitor your PWS for contaminants identified by state and federal drinking water regulations. The results of such monitoring are not part of this report. They are sent to you under separate cover as they become available.

If you have questions concerning the information contained in the report, please contact me at 218/308-2107.

Sincerely,

Eric Weller
Community Public Water Supply Unit
Environmental Health Division
705 5th Street, NW, Suite A
Bemidji, Minnesota 56601-2933

EW
Enclosures
cc: Water Superintendent



**MINNESOTA DEPARTMENT OF HEALTH
SECTION OF DRINKING WATER PROTECTION
Public Water Supply Inventory Report**



System Name: Blackduck	Survey Date: 09/05/2024
PWSID: 1040014	Surveyor: Eric Weller
System Contact: Mike Schwanke	PWS Type: Community

Contact Information

<u>Name</u>	<u>Address</u>	<u>Phone/Email</u>
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Contact

Mike Schwanke		Business Phone 1 218/407-4084 Cell Phone 218/407-4084 Email michael.schwanke@blackduc kmn.com
Chris Brown	Blackduck, MN 56630	Business Phone 1 218/239-0132

Owner/Responsible Party

Blackduck City Council	c/o Christina Regas, Administrator Blackduck City Hall P.O. Box 380 Blackduck, MN 56630	Business Phone 1 218/835-4803, Ext. City Hall Email christina.regas@blackduck mn.com
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Financial

Blackduck City Council	c/o Ms. Christina Regas, Clerk Blackduck City Hall P.O. Box 380 Blackduck, MN 56630-0380	Business Phone 1 218/835-4803 Email christina.regas@blackduck mn.com
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Sample Bottles/General Correspondence

Blackduck Water Superintendent	City Hall P.O. Box 380 8 Summit Avenue NE Blackduck, MN 56630	Business Phone 1 218/407-4084 Email michael.schwanke@blackduc kmn.com
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Emergency Workday

Mike Schwanke		Business Phone 1 218/835-4809, Ext. office Cell Phone 218/407-4084 Email michael.schwanke@blackduc kmn.com
Chris Brown		Business Phone 1 218/239-0132

Emergency After-Hours

Mike Schwanke		Business Phone 1 218/835-4809, Ext. office Cell Phone 218/407-4084 Email mike.schwanke@blackduckmn .com
Chris Brown		Business Phone 1 218/239-0132

Consumer Confidence Report

Christina Regas		Business Phone 1 218/835-4803 Email christina.regas@blackduck mn.com
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**MINNESOTA DEPARTMENT OF HEALTH
SECTION OF DRINKING WATER PROTECTION
Public Water Supply Inventory Report**



System Name: Blackduck	Survey Date: 09/05/2024
PWSID: 1040014	Surveyor: Eric Weller
System Contact: Mike Schwanke	PWS Type: Community

Classification Information

Owner Type: Municipal	Population: 826
System Class: C	Service Connections: 283
Service Area Characteristics: Municipal	Class Points: 34

Certified Operators

Name	Class	Expiration Date	Name	Class	Expiration Date
Brown, Chris J.	C	11/30/2027	Schwanke, Michael J.	C	06/30/2025

Production Totals

Design Capacity: 150 Gallons per Minute	Emergency Capacity: 150,000 Gallons
Average Daily: 64,200 Gallons	Storage Capacity: 150,000 Gallons
Highest Daily: 100,000 Gallons	

Source Information

Well #8

Unique Well No.: 00769253	Source Type: Groundwater
Type: Well	Pump Capacity (gpm): 200
Status: Active	Pumping Rate (gpm): 150
Availability: Primary	Emergency Capacity:
Year Constructed: 2008	Static Depth (ft): 17
Well Depth (ft): 215	Drawdown (ft): 54
Casing Depth (ft): 190	Pump Type: Submersible
Casing Diameter (in): 8	Vulnerable: No
Screen Length (ft): 25	
Aquifer: Quaternary Buried Artesian Aquif	

Well #5

Unique Well No.: 00415804	Source Type: Groundwater
Type: Well	Pump Capacity (gpm): 130
Status: Active	Pumping Rate (gpm): 110
Availability: Emergency	Emergency Capacity:
Year Constructed: 1985	Static Depth (ft): 25
Well Depth (ft): 191	Drawdown (ft): 51
Casing Depth (ft): 161	Pump Type: Submersible
Casing Diameter (in): 8	Vulnerable: No
Screen Length (ft): 30	
Aquifer: Quaternary Buried Artesian Aquif	

Specific Source Notes: Well is working and is exercised in case of an emergency. EW



MINNESOTA DEPARTMENT OF HEALTH
SECTION OF DRINKING WATER PROTECTION
Public Water Supply Inventory Report



System Name: Blackduck	Survey Date: 09/05/2024
PWSID: 1040014	Surveyor: Eric Weller
System Contact: Mike Schwanke	PWS Type: Community

Treatment Information

TREATMENT PLANT (NEW)

Type: Treatment Plant
 Status: Active
 Availability: Primary

Source Water: Groundwater
 Design Capacity: 150 Gallons per Minute
 Emergency Capacity:
 Operating Rate: 150 Gallons per Minute

Treatment Objective

- Arsenic Removal
- Disinfection
- Fluoridation
- Iron Removal

Treatment Process Mechanism

- Filtration (Pressure)/Patented sand
- Chlorine/Sodium hypochlorite
- Fluoridation/Hydrofluosilicic acid
- Detention (chemical reaction time)
- Filtration (Pressure)/Patented sand
- Oxidation - chemical/Chlorine

Storage Information

Elevated 150000

Type: Storage-Elevated
 Status: Active

Capacity: 150,000 Gallons
 Availability: Primary
 Chlorination:



**MINNESOTA DEPARTMENT OF HEALTH
SECTION OF DRINKING WATER PROTECTION
Public Water Supply Inventory Report**



System Name: Blackduck	Survey Date: 09/05/2024
PWSID: 1040014	Surveyor: Eric Weller
System Contact: Mike Schwanke	PWS Type: Community

Bacteriological Sample Site Plan

Distribution

<u>Sample Site ID</u>	<u>Sample Location</u>	<u>Status</u>	<u>Notes</u>
001	Bus Garage - 341 US Hwy 71	Active	
002	The Pond - 224 Frontage Rd	Active	
003	City Hall - 8 Summit Ave NE	Active	
004	New City Shop - 197 Industrial Ln	Active	



MINNESOTA DEPARTMENT OF HEALTH
Section of Drinking Water Protection
Sanitary Survey Report



System Name: **Blackduck**

PWSID: **1040014**

System Contact: **Mike Schwanke**

Survey Date: **09/05/2024**

Surveyor: **Eric Weller**

PWS Type: **Community**

Requirements and Recommendations

Requirements are based on regulation, code, and standard operating procedures across the water industry to be followed to maintain the public water supply and are listed here as informational guidance. Requirements not followed may be elevated to deficiencies. Recommendations are best practices for a public water supply to maintain the safe delivery of drinking water to consumers.

Water Source

As a reminder, it is required that a well for a community public water supply be located according to distances specified in Minn.Rules 4725.4450, including not less than 50 feet from a source of contamination including buried sewers (except as specified in Minn. Rules 4725.5850).

Pumps/Pump Facilities and Controls

To ensure continuous service when the primary power has been interrupted, it is recommended that a standby power source be provided through: 1. a direct connection to at least two independent public power sources, or 2. dedicated portable or in-place auxiliary power of adequate supply and connectivity. [Minn. Rules 4720.3927]

Treatment

No deficiencies observed.

Water Storage

No deficiencies observed.

Distribution

When truck filling from hydrants adequate backflow protection is required to be in place to prevent a cross connection that could result in the back siphonage of toxic material into the drinking water supply. One of the following must be implemented:

- a. A permanent air-break installed on the discharge end of the each hose used for the tank filling.
- b. A reduced pressure zone backflow preventer installed on the supply line.
- c. A vacuum breaker can be used if it is permanently located at least 12 inches above the outlet of the pipe and the overflow rim of the highest truck for each filling point.

[Recommended Standards for Water Works 8.13]

It is recommended that dead ends in the distribution system be minimized by looping. If looping is not feasible, a fire hydrant, approved flushing hydrant or blow off for flushing purposes must be used at the dead ends to maintain water quality and/or chlorine residual. [Recommended Standards for Water Works 8.0]

It is recommended that a total chlorine residual of at least 1.0 milligrams per liter be maintained on all points of the distribution system.



MINNESOTA DEPARTMENT OF HEALTH
Section of Drinking Water Protection
Sanitary Survey Report



System Name: Blackduck	Survey Date: 09/05/2024
PWSID: 1040014	Surveyor: Eric Weller
System Contact: Mike Schwanke	PWS Type: Community

Requirements and Recommendations

Requirements are based on regulation, code, and standard operating procedures across the water industry to be followed to maintain the public water supply and are listed here as informational guidance. Requirements not followed may be elevated to deficiencies. Recommendations are best practices for a public water supply to maintain the safe delivery of drinking water to consumers.

Monitoring/Reporting Data Verification

The following applicable records are required to be maintained by the water supply system:

- a. Coliform bacteria results - 5 years
 - b. Chlorine residual results - 5 years
 - c. Chemical results - 10 years
 - d. Sanitary survey reports - 10 years
 - e. All lead and copper materials - 12 years
 - f. Consumer confidence reports - 3 years
 - g. Public Notices - 3 years
 - h. Fluoride quarterly results and monthly reports - 1 year
 - i. Turbidity results - 3 years
- [Minn. Rules 4720.0350]

It is recommended that the following records be maintained by the water supply system:

- a. Daily pumping per well
- b. Fluoride added per well
- c. Chlorine added per well
- d. Daily chlorine residuals on the distribution system
- e. Maintenance and repairs

As a Public Water System, it is required to collect total coliform samples from sites that are representative of the water quality throughout the entire distribution system. We have observed that the total coliform samples have primarily been collected from the same sample sites each monitoring period. To ensure that your sampling is comprehensive and accurate, the system is required to cycle through all sample sites listed on your bacteriological sample site plan[40 CFR 141.21]. If there have been any updates or changes to these sites, please notify your MDH district engineer.

For more guidance on bacteriological sampling:

<https://www.health.state.mn.us/communities/environment/water/docs/sampproc/tcguidancecom.pc>



MINNESOTA DEPARTMENT OF HEALTH
Section of Drinking Water Protection
Sanitary Survey Report



System Name: Blackduck	Survey Date: 09/05/2024
PWSID: 1040014	Surveyor: Eric Weller
System Contact: Mike Schwanke	PWS Type: Community

Requirements and Recommendations

Requirements are based on regulation, code, and standard operating procedures across the water industry to be followed to maintain the public water supply and are listed here as informational guidance. Requirements not followed may be elevated to deficiencies. Recommendations are best practices for a public water supply to maintain the safe delivery of drinking water to consumers.

Monitoring/Reporting Data Verification

It is recommended that the levels of iron and manganese in the treated water be tested at least once per backwash cycle and recorded in the plant log books. These values, among other technical aspects, should be utilized as a guide for determining the appropriate time to backwash the filters.

It is important to note that the Minnesota Department of Health (MDH) has established specific health-based guidance values for manganese in drinking water. For formula-fed infants and infants that consume tap water, the guidance value is 100 µg/L or 0.1 mg/l. For children over one year of age and adults, the MDH supports the EPA Lifetime Health Advisory Level of 300 µg/L or 0.3 mg/l.

In addition to health concerns, there are also aesthetic limits for both iron and manganese in drinking water. The aesthetic limit for manganese is 50 µg/L or 0.05 mg/l, while the aesthetic limit for iron is 300 µg/L or 0.3 mg/l. These values should also be taken into consideration when monitoring the levels of these elements in the water supply.

Water System Management/Operation

Public water supplies are required to maintain effective security measures to protect physical infrastructure and operational practices. This includes security of the physical infrastructure and related operational practices and institutional controls. Listed below are the security concerns that must be identified and addressed:

- a. Intrusion deterrents such as physical barriers, lighting, camera, alarms, and sturdy locking hardware with hardened protective covers for all facilities and components.
- b. Computer based control technologies such as SCADA must be secured from unauthorized physical access and potential cyber attacks.
- c. Safe delivery, handling and storage of chemicals.
- d. Redundancy and enhanced security features to eliminate single point of failure.

[ANSI/AWWA G430-14(R20) and Recommended Standards for Water Works 2.19]

Engineering plans for new, modifications to, or additions to the water supply system, including watermains, are required to be properly submitted to the Minnesota Department of Health for review. All plans must be approved prior to the start of construction. [Minn. Rules 4720.0010]

To ensure security, it is recommended that a daily check of critical system components be conducted, including confirmation that all doors and access hatches are locked.



MINNESOTA DEPARTMENT OF HEALTH
Section of Drinking Water Protection
Sanitary Survey Report



System Name: **Blackduck**

PWSID: **1040014**

System Contact: **Mike Schwanke**

Survey Date: **09/05/2024**

Surveyor: **Eric Weller**

PWS Type: **Community**

Requirements and Recommendations

Requirements are based on regulation, code, and standard operating procedures across the water industry to be followed to maintain the public water supply and are listed here as informational guidance. Requirements not followed may be elevated to deficiencies. Recommendations are best practices for a public water supply to maintain the safe delivery of drinking water to consumers.

Operator Compliance with State Requirements

The certified operators are required to qualify themselves by attending waterworks operators training seminars offered throughout the state. Continuing education is valuable experience for anyone engaged in this field. The required contact hours in the previous 3 years for certification renewal are:

- Class A 32 contact hours
 - Class B 24 contact hours
 - Class C 16 contact hours
 - Class D 8 contact hours
 - Class E 4 contact hours
- [Minn. Rules 9400.1200]



MINNESOTA DEPARTMENT OF HEALTH
Section of Drinking Water Protection
Sanitary Survey Report



System Name: Blackduck	Survey Date: 09/05/2024
PWSID: 1040014	Surveyor: Eric Weller
System Contact: Mike Schwanke	PWS Type: Community

Bacteriological Results and Chlorine Residuals

<u>Date</u>	<u>Sampling Location</u>	<u>Chlorine Residual Free / Total (mg/L)</u>	<u>Coliform Bacteria</u>	<u>E.Coli</u>
09/05/2024	Well #8	/	Absent	
09/05/2024	Serenity Suites	< 0.20 / < 0.20	Absent	
09/05/2024	City Shop	< 0.20 / < 0.20	Absent	

APPENDIX G

DISCHARGE MONITORING DATA

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2022 PER-ER Workbook.xlsx, DMR monthly corrected

Year	Month	Average Flow (mgd)	Maximum Flow (mgd)	Total Flow (Mgal)	Precip. (in)	CBOD (mg/L)	TSS (mg/L)	annual Flow	7 month avg	Summer Avg. Flow	Winter Flow	Winter Avg. Flow
2015	1	0.053	0.062	1.650	0.000							
2015	2	0.051	0.069	1.424	0.000							
2015	3	0.055	0.086	1.701	0.250	543	307					
2015	4	0.060	0.076	1.797	1.000				0.0599			
2015	5	0.128	0.334	3.959	6.710				0.12770968			
2015	6	0.109	0.147	3.272	4.220	146	120		0.10906667			
2015	7	0.083	0.104	2.564	2.870				0.08270968			
2015	8	0.068	0.110	2.118	1.070				0.06832258			
2015	9	0.059	0.078	1.781	1.220	168	116		0.05936667			
2015	10	0.056	0.094	1.734	2.200				0.05593548	0.08043011		
2015	11	0.088	0.196	2.652	3.050						0.0884	
2015	12	0.087	0.112	2.695	1.000	241	300	0.07477501			0.08693548	
2016	1	0.060	0.081	1.867	0.000						0.06022581	
2016	2	0.055	0.065	1.583	0.000						0.05458621	0.07253687
2016	3	0.113	0.159	3.505	0.000	148	128		0.11306452			
2016	4	0.142	0.216	4.266	2.130				0.1422			
2016	5	0.096	0.139	2.984	1.530				0.09625806			
2016	6	0.087	0.114	2.617	2.960	124	144		0.08723333			
2016	7	0.088	0.148	2.730	3.990				0.08806452			
2016	8	0.102	0.215	3.149	5.960				0.10158065			
2016	9	0.095	0.144	2.849	3.480	437	280		0.09496667	0.10333825		
2016	10	0.075	0.093	2.321	0.690							
2016	11	0.066	0.117	1.986	1.510						0.066	
2016	12	0.074	0.106	2.280	0.000	76	82	0.08773326			0.074	
2017	1	0.062	0.098	1.907	0.960						0.062	
2017	2	0.087	0.182	2.449	0.730						0.087	0.072
2017	3	0.104	0.148	3.229	0.580	127	120		0.10416129			
2017	4	0.104	0.148	3.123	1.460				0.1041			
2017	5	0.099	0.131	3.073	1.320				0.09912903			
2017	6	0.080	0.105	2.394	3.540	313	178		0.0798			
2017	7	0.059	0.076	1.821	1.060				0.05874194			
2017	8	0.053	0.062	1.638	1.460				0.05283871			
2017	9	0.057	0.085	1.695	2.320	104	80		0.0565	0.07932442		
2017	10	0.060	0.078	1.875	0.930							
2017	11	0.056	0.073	1.694	0.890						0.05646667	
2017	12	0.049	0.067	1.524	1.010	260	328	0.07253027			0.04916129	
2018	1	0.050	0.062	1.557	0.610						0.05022581	
2018	2	0.047	0.060	1.309	1.300						0.04675	0.05065094
2018	3	0.054	0.072	1.672	0.340	220	288					

2022 PER-ER Workbook.xlsx, DMR monthly corrected

2018	4	0.066	0.096	1.973	0.300				0.06576667			
2018	5	0.104	0.185	3.211	3.590				0.10358065			
2018	6	0.097	0.176	2.922	6.400	116	63		0.0974			
2018	7	0.074	0.113	2.285	2.690				0.07370968			
2018	8	0.053	0.068	1.649	1.940				0.05319355			
2018	9	0.055	0.082	1.642	5.370	257	256		0.05473333			
2018	10	0.092	0.136	2.857	5.010				0.09216129	0.07722074		
2018	11	0.081	0.120	2.442	1.020						0.0814	
2018	12	0.056	0.071	1.734	1.350	111	65	0.06906599			0.05593548	
2019	1	0.053	0.063	1.630	0.600						0.05258065	
2019	2	0.051	0.085	1.433	1.400						0.05117857	0.06027368
2019	3	0.066	0.149	2.050	1.570	682	170					
2019	4	0.186	0.292	4.646	2.930				0.186			
2019	5	0.154	0.220	4.465	2.000				0.154			
2019	6	0.097	0.142	2.911	3.210	144	54		0.097			
2019	7	0.108	0.192	3.335	3.510				0.108			
2019	8	0.064	0.110	1.999	2.930				0.064			
2019	9	0.075	0.222	2.162	4.260	421	294		0.075			
2019	10	0.141	0.285	4.385	5.480				0.141	0.1178716		
2019	11	0.088	0.123	2.649	0.850						0.08830	
2019	12	0.066	0.085	2.039	3.150			0.096			0.06577	
2020	1	0.076	0.092	2.363	0.880						0.07600	
2020	2	0.061	0.168	1.566	0.070						0.06100	0.07277
2020	3	0.083	0.218	2.578	0.350	31	59		0.083			
2020	4	0.166	0.384	5.373	0.990				0.166			
2020	5	0.103	0.140	3.201	1.400				0.103			
2020	6	0.093	0.548	3.984	3.800	112	238		0.093			
2020	7	0.087	0.453	3.057	4.500				0.087			
2020	8	0.104	0.268	3.217	6.500				0.104			
2020	9	0.083	0.291	2.503	2.000	140	120		0.083	0.10271429		
2020	10	0.072	0.088	2.242	1.100							
2020	11	0.068	0.089	3.460	0.380						0.06800	
2020	12	0.053	0.066	1.636	0.560	2,500	300	0.08741667			0.05300	
2021	1	0.057	0.161	2.393	0.410						0.05700	
2021	2	0.071	0.148	2.283	0.000						0.07100	0.06225
2021	3	0.078	0.164	3.038	0.470	58	66		0.078			
2021	4	0.127	0.285	5.339	3.600				0.127			
2021	5	0.101	0.297	4.780	0.000				0.101			
2021	6	0.065	0.080	2.666	1.100	154	135		0.065			
2021	7	0.057	0.083	1.780	1.400				0.057			

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APPENDIX H

2025 MPCA COMPLIANCE EVALUATION INSPECTION & LETTER OF WARNING

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March 14, 2025

The Honorable Max Gullette
Mayor, City of Blackduck
PO Box 380
Blackduck, MN 56630-0380

RE: Blackduck Wastewater Treatment Facility
State Disposal System Permit No. MN0052302
Compliance Evaluation Inspection and Letter of Warning

Dear Max Gullette:

Enclosed/Attached is the Compliance Evaluation Inspection (CEI) Report and Letter of Warning (LOW) that resulted from an inspection of the Blackduck Wastewater Treatment Facility (WWTF) on February 26, 2025, by Alana Serviss of the Minnesota Pollution Control Agency (MPCA). The CEI consisted of a visual inspection of the Facility and a discussion with Mike Schwanke, City of Blackduck. In addition, there was a review of the monthly Discharge Monitoring Reports (DMRs) and other reports for the time period October 2019 through February 2025. Based on the results of the CEI, seven violations of the terms and conditions set forth in the National Pollutant Discharge Elimination System (NPDES)/State Disposal System (SDS) permit were documented as alleged in the LOW. Please see the attached CEI Report and LOW for further detail.

Corrective actions and deadlines are listed on page 12 of the Report.

Please be aware, this correspondence does not preclude the MPCA from taking further action in response to noncompliance identified.

Cybersecurity

Recent news of cyberattacks on critical infrastructure nationwide has highlighted the need to increase cybersecurity measures on critical systems. [Minnesota's Whole-of-State Cybersecurity Plan](#) identifies four goals, including strengthening the cyber-resiliency of critical infrastructure, specifically for water and wastewater systems. Please ensure that you are employing basic cybersecurity hygiene practices to mitigate cyber threats. You can do this by registering with the [Minnesota Fusion Center](#), assessing your current cybersecurity practices, identifying significant vulnerabilities and taking actions to reduce risks, and creating a plan to recover from a cyber incident. Resources and guidance can be found at [EPA Cybersecurity for the Water Sector](#), [Top Cyber Actions for Securing Water Systems](#), or [CISA Cybersecurity Services & Tools](#).

The Honorable Max Gullette

Page 2

March 14, 2025

If you have any questions, please contact me at 218-846-8120 or 800-657-3864 and by email at alana.serviss@state.mn.us. Thank you for your attention to this matter.

Sincerely,

Alana Serviss

This document has been electronically signed.

Alana Serviss
Environmental Specialist
Municipal Division

AS:aeg

Enclosure/Attachment

cc: Mike Schwanke, Blackduck Wastewater Treatment Facility (electronic) (w/attachment)
Activity ID INS20250001 @ 371

**Water Quality Point Source Program
Compliance Evaluation Inspection Report**

Facility information:

Facility name: Blackduck Wastewater Treatment Facility
 Permit number: MN0052302
 Address: County Road 30 & Tepee Hill Lane, Blackduck, Minnesota 56630
 SIC code: 4952 - Sewerage Systems
 Permit expiration date: September 30, 2029
 Facility design flow: 0.125 million gallons per day (mgd) average wet weather (AWW)
 EPA facility type classification: EPA Minor (Minor: <1.0 mgd
 AWW Design; Major: >1.0 mgd AWW Design)
 Type of flow: Domestic
 Land application type: Spray Type V

Geographic information:

MPCA region: MPCA Northwest Region
 County: Beltrami
 Basin: Red River of the North
 Major watershed: Upper/Lower Red Lake
 Receiving water: NA

Those present during the inspection:

Mike Schwanke, City of Blackduck

MPCA representatives:

Alana Serviss, Environmental Specialist

Inspection information:

Inspection date: February 26, 2025
 Inspection category: Routine Inspection
 Inspection type: Wastewater (WW) Compliance Evaluation Inspection

Facility components:

- Effluent Disposal - agricultural spray irrigation
- Primary treatment - primary stabilization pond
- Secondary Stabilization Pond

Treatment plant operators:

Name	Email	Phone	Class	Expiration
Matthew Patch	vinnypatch@hotmail.com	218-553-0036	D	1/1/2028
Chris Brown	chrisbrown.home@outlook.com	218-239-0132	D	12/1/2027

If any of the above Treatment plant operators, including their associated contact information are inaccurate, please submit those edits to Tracy Finch (tracy.finch@state.mn.us) and Andrea Ebner (andrea.ebner@state.mn.us).

Facility contacts:

Name	Relationship	Phone	Email
Curt Meyer	is contractor for	218-308-2603	curt.meyer@wsn.us.com
Chris Brown	is 24-Hour emergency contact - Secondary for	218-239-0132	
Max Gullette	is responsible official for owns	218-835-4803	
Mike Schwanke	is 24-Hour emergency contact-Primary for is DMR recipient for is Online Subscriber for is Wastewater permit contact for is pretreatment contact for	218-350-0961 218-407-4084 218-835-4809	michael.schwanke@blackduckmn.com
Christina Regas	is Wastewater Billing Contact for	218-835-4803	christina.regas@blackduckmn.com

If any of the above contacts are inaccurate, please submit the appropriate form to

NPDES.PCA@state.mn.us:

- To remove an Online Subscriber contact, please submit an [e-Services: Request to remove account holder authorization](#) (wq-wwprm7-100b)
- For all other contact updates, please submit a [Permit contact change form](#) (wq-wwprm7-72)

Inspection Summary

Inspection/Records Review Timeframe: October 2019 to February 2025

A Wastewater (WW) Compliance Evaluation Inspection was conducted on February 26, 2025, by Alana Serviss of the Minnesota Pollution Control Agency (MPCA) to determine the compliance of Blackduck Wastewater Treatment Facility (WWTF) with the terms and conditions of its National Pollutant Discharge Elimination System (NPDES)/State Disposal System (SDS) Permit.

Key: A = Advisory C = Compliant NC = Non-Compliant NI = Not Inspected NA = Not Applicable

Compliance status	Requirement and notes
	Overall physical condition of the plant

Comments:

- At the time of the inspection the rip rap around the stabilization ponds were in excellent condition. The facility had a good fence that was locked and had proper signage around the ponds.
- The facility is designed to treat an annual average design flow of 125,500 gallons per day (gpd) with a five-day carbonaceous biochemical oxygen demand (CBOD₅) strength of 204 milligrams per liter (mg/L). The stabilization pond system consists of two primary cells of 5 acres each and one secondary cell of 13.1 acres, all measured at the four-foot depth level. The stabilization pond system provides a total detention time of 240 days at design flow.

NC C A

Adequate Operation & Maintenance to achieve permit compliance

- **Certified Operator**

First Name	Last Name	Class Name	Business phone	Email address	Facility	Expiration Date
Chris	Brown	D	2182390132	chrisbrown.home@outlook...	Blackduck WWTP	12/01/2027
Matthew	Patch	D	2185530036	vinnypatch@hotmail.com	Blackduck WWTP	01/01/2028
Michael	Schwanke	D	2184074084	michael.schwanke@blackd..	Blackduck WWTP	01/01/2025

- **Maintenance schedule - daily, weekly, and monthly:** The Regulated Party mows grass and spray weeds with AquaStar as needed. The collection system is flushed annually. If there are problems in the collection system, they will jet the problem area. The collection system was televised in 2019/2020. Check valves were replaced at a couple of the lift stations and grinder pumps were replaced at the 4th Street lift station in 2023.
- **Chemical additives/Bioaugmentation approved:** None
- **Bypass structures – all structures capable of bypassing kept locked:** None

NI NA

Inflow & Infiltration (I&I)/collection system

- **Number of lift stations:** 6
- **Alarm System:** The Regulated Party have the lift stations on a Supervisory Control and Data Acquisition (SCADA) system. It notifies the person on call with a detail description of the alarm.
- **Miles of sanitary sewer:** According to the 2020 Wastewater Infrastructure Needs (WINS) and Capital Cost Survey, the Regulated Party has filled out that the facility has nine miles of collection system with 50% of the collection system that is 30-50 years old, and 25% of the collection system is less than 30 years old.
 - **Inspection/cleaning program frequency:** The collection system is flushed annually.
 - **I&I ordinance in effect – If yes, is it enforceable:** The Regulated Party has a sump pump ordinance, and it is enforced.

Compliance status | **Requirement and notes**

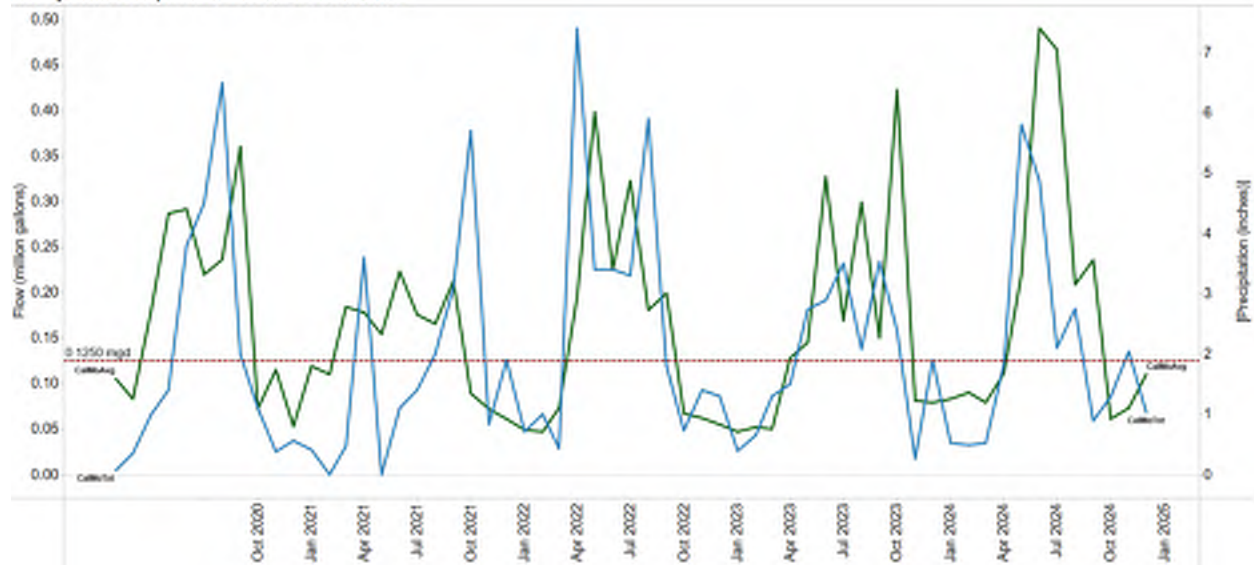
Comments: City Administration and Widseth is working on funding to replace flow meters at the lift station and pumps and clay tile in the collection system.

- The MPCA recommends filling out the Wastewater Infrastructure Needs Survey (WINS) every two years. WINS is a survey of the current conditions and future needs of Minnesota’s publicly owned wastewater treatment and conveyance infrastructure, which helps the State of Minnesota allocate funds for improvement projects. WINS consists of: (a) A General Community Information survey, and (b) Project surveys for current and future sewer system and wastewater treatment facility (WWTF) projects. WINS is sent out every other year to WWTF’s. The next survey to go out to Facilities will be June 2025. The most recent WINS submitted by the facility was in 2020 and it didn’t include the age of 25% of the collection system.

Flow data (compare design flow to actual flow)

- Design Flow:** 0.125 mgd
- Actual Flow (3-4 yr. avg):** 0.094 or 75 % of design flow

Monthly Flow & Precipitation values for Blackduck WWTP



Influent Waste Stream	WS 001	Avg. Rpt Value	0.094	0.081	0.108	0.094
		Percent of design	74.87%	64.40%	86.67%	75.31%

Compliance status | **Requirement and notes**

NC C A

Equipment calibration - Flow instrument calibration methods

- Flow equipment (pump run times, meters, etc.)**

Comments: The Regulated Party failed to calibrate influent pumps twice per year. During the inspection, the MPCA and the operator discussed that influent pump calibrations need to be done twice per year.

NC C A

Releases/Incidents prohibited

Comments: The Regulated Party had no releases documented over the review period.

Compliance status | **Requirement and notes**

NC C A
 NA

Release follow-up:

- Immediately notify the Minnesota Duty Officer: **1-800-422-0798**
- Take all reasonable steps to immediately end the release.
- Quickly **recover** as much of the materials and substances as you can.
- Provide notice** to potential impacted public and downstream users.
- Collect a representative **sample** of the release.
- Report sampling results** to the MPCA.

Compliance status	Requirement and notes
<input type="checkbox"/> NC <input type="checkbox"/> C <input type="checkbox"/> A <input checked="" type="checkbox"/> NA	Release sampled and results submitted within 30 days
<input type="checkbox"/> NC <input checked="" type="checkbox"/> C <input type="checkbox"/> A	Nuisance conditions prohibited
	Comments: At the time of inspection, no nuisance conditions were documented.
<input type="checkbox"/> NI	Sampling methods/lab certification
<input type="checkbox"/> NC <input checked="" type="checkbox"/> C <input type="checkbox"/> A	Representative sampling (Sample type (e.g., Comp vs Grab) compliant with Limits & Monitoring, location, timing)
<input type="checkbox"/> NC <input checked="" type="checkbox"/> C <input type="checkbox"/> A	Additional sampling (If yes – reported on Discharge Monitoring Reports (DMRs) and Sample Values)
<input checked="" type="checkbox"/> NC <input type="checkbox"/> C <input type="checkbox"/> A	Certified lab analyzes samples or field parameters in-house and calibrations compliant <ul style="list-style-type: none"> • Certified laboratory name: Current: RMB Environmental Laboratories, Inc. (EPA ID: MN00918; State Code: 027-005-336). • Soil Samples: Third Party: Midwest Laboratories
	Comments: The Regulated Party uses RMB Environmental Laboratories and their courier to meet temperature and hold times. As a reminder, potential of hydrogen (pH) samples are field parameters and need to be analyzed within 15 minutes of collection. Calibration records for the pH meter needs to be maintained for a minimum of three years.
	Field parameter analysis: potential of hydrogen (pH) <ul style="list-style-type: none"> • Instrument manufacturer and model: Hach PocketPro • Calibration procedure and records No records maintained. • Minimum of two-point calibration The Regulated Party has one buffer solution pH 7. • Buffers current (e.g., not expired) Current- pH 7 • Calibrated each day of sample Yes
	Comments: The Regulated Party performs analysis for pH onsite within 15 minutes of sample collection. At the time of inspection, no calibration records were onsite. The Regulated Party performs a one-point calibration and had a current buffer of 7. The Regulated Party needs at minimum a two-point calibration and is required to maintain calibration records for a minimum of three years.
<input type="checkbox"/> NC <input checked="" type="checkbox"/> C <input type="checkbox"/> A	Sample preservation and procedures <ul style="list-style-type: none"> • Holding times (e.g., pH, TRC, DO within 15 min., etc.) • Thermal preservation adequate ($\leq 6^{\circ}$Celsius) • Composite samples refrigerated during sample collection if applicable
	Comments: Sample types, holding times and thermal preservation were found adequate. Samples required by the city's NPDES/SDS are collected at proper and representative locations and analyzed by a state certified contracted laboratory. At the time of inspection, supporting documents, including sampling logs, lab reports, and chain of custody forms were requested and found to be complete and accurate.
<input type="checkbox"/> NI	DMRs/sample values/annual reports

Compliance status	Requirement and notes
<input checked="" type="checkbox"/> NC <input type="checkbox"/> C <input type="checkbox"/> A	<p>Timeliness</p> <ul style="list-style-type: none"> Reports (Required reports submitted on time) Spray Irrigation Report: <ul style="list-style-type: none"> 2019 Annual Report Due: January 21, 2020- Submitted Late on February 14, 2020 2020 Annual Report Due: January 21, 2021- Submitted on time January 20, 2021, and amended on February 9, 2021 2021 Annual Report Due: January 21, 2022- Submitted late on January 28, 2022 2022 Annual Report Due: January 21, 2023- Submitted late on January 31, 2023 2023 Annual Report Due: January 21, 2024- Submitted on time January 19, 2024 Sample Values submitted on time DMRs submitted on time

Comments: The Regulated Party had four late sample value spreadsheets and discharge monitoring reports over the review period. Three out of five Spray Irrigation Annual Reports were submitted late.

Station	DMR monitoring period	Violation type	Submission due date	Submission received
WS 001	6/1/2024 - 6/30/2024	Late	7/21/2024	7/24/2024
WS 001	11/1/2024 - 11/30/2024	Late	12/21/2024	12/23/2024
WS 002	6/1/2024 - 6/30/2024	Late	7/21/2024	7/24/2024
WS 002	11/1/2024 - 11/30/2024	Late	12/21/2024	12/23/2024

Compliance status	Requirement and notes
<input type="checkbox"/> NC <input checked="" type="checkbox"/> C <input type="checkbox"/> A	Completing Reports (DMRs, etc. complete and submitted on MPCA approved forms)
<input type="checkbox"/> NC <input type="checkbox"/> C <input checked="" type="checkbox"/> A	<p>Accuracy (e.g., Lab data match all DMR values and frequency)</p> <p>The MPCA found four minor errors during the review and emailed the Regulated Party on March 4, 2025, to amend.</p> <p>As a reminder, the Regulated Party shall report monitoring results below the reporting limits (RL) "<" the value of the RL.</p>
<input type="checkbox"/> NC <input checked="" type="checkbox"/> C <input type="checkbox"/> A	Chain of Custody (COC) forms (completely filled out, available, etc.)
<input checked="" type="checkbox"/> NC <input type="checkbox"/> C <input type="checkbox"/> A	Frequency of sampling (as required by permit, no missed samples) The Regulated Party missed six samples over the review period. Comments were left on the Discharge Monitoring Report explaining what happened.

Parameters missing from submitted DMRs

Station	DMR monitoring period	Parameter
WS 001	9/1/2022 - 9/30/2022	BOD, Carbonaceous 05 Day (20 Deg C) - Calendar Quarter Average [Avg Conc]
WS 001	9/1/2022 - 9/30/2022	Solids, Total Suspended (TSS) - Calendar Quarter Average [Avg Conc]
WS 001	9/1/2022 - 9/30/2022	pH - Calendar Quarter Maximum [Max Conc]
WS 001	12/1/2019 - 12/31/2019	BOD, Carbonaceous 05 Day (20 Deg C) - Calendar Quarter Average [Avg Conc]
WS 001	12/1/2019 - 12/31/2019	Solids, Total Suspended (TSS) - Calendar Quarter Average [Avg Conc]
WS 001	12/1/2019 - 12/31/2019	pH - Calendar Quarter Maximum [Max Conc]

Compliance status	Requirement and notes
<input checked="" type="checkbox"/> NC <input type="checkbox"/> C <input type="checkbox"/> A	Permit limit compliance: The Regulated Party had two exceedances over the review period.

Station	DMR monitoring period	Parameter	Limit	Reported value
WS 002	8/1/2024 - 8/31/2024	Fecal Coliform, MPN or Membrane Filter 44.5C in organisms per 100 milliliter - calendar month geometric mean	200	261
WS 002	8/1/2020 - 8/31/2020	Fecal Coliform, MPN or Membrane Filter 44.5C in organisms per 100 milliliter - calendar month geometric mean	200	2420

Compliance status	Requirement and notes
<input type="checkbox"/> NC <input type="checkbox"/> C <input checked="" type="checkbox"/> A <input type="checkbox"/> NA	Permit limit violation follow-up

Comments: During the inspection, the MPCA and the operator discussed exceedances and the importance of providing comments on the DMR describing the action(s) taken to investigate the effluent exceedance and prevent limit exceedances from occurring in the future. No further action is required of the Regulated Party.

Compliance status	Requirement and notes
<input type="checkbox"/> NI	Record keeping
<input checked="" type="checkbox"/> NC <input type="checkbox"/> C <input type="checkbox"/> A	Maintain records for at least three years and with following: <ul style="list-style-type: none"> • Place, date, time of sample/measurement • Date of analysis • Name of person performing sample/measurement, etc. • Analytical techniques, procedures, and methods used • Results of analysis

Comments: The Regulated Party failed to maintain pH records over the review period. All records should be maintained for a minimum of three years. Sample results, flow results, precipitation records and soil records were well maintained and organized. Reports and chain of custodies were ready at the time of inspection.

Compliance status	Requirement and notes
<input type="checkbox"/> NC <input checked="" type="checkbox"/> C <input type="checkbox"/> A <input type="checkbox"/> NA	Biosolids/land application sites:

Compliance status	Requirement and notes
<input type="checkbox"/> NC <input type="checkbox"/> C <input checked="" type="checkbox"/> A <input type="checkbox"/> NA	Pretreatment Significant industrial users: No <ul style="list-style-type: none"> • Agreement in place and up to date • Inspection frequency: / • Sampling frequency: / Trucked-in waste accepted? If yes, sampled appropriately? The Regulated Party accepts trucked-in waste, but it is not sampled.
Comments: The MPCA recommends collecting a sample of the trucked in waste once a month for routine users. The Regulated Party is responsible for knowing what type of waste they are receiving.	
Stabilization pond operation	
<input type="checkbox"/> NC <input checked="" type="checkbox"/> C <input type="checkbox"/> A <input type="checkbox"/> NA	Bypass structures – all structures capable of bypassing kept locked
<input type="checkbox"/> NC <input checked="" type="checkbox"/> C <input type="checkbox"/> A	Pond observations – Pond system inspected weekly and records kept of the following: <ul style="list-style-type: none"> • Water depth; Aquatic plant coverage; Floating mats and Ice cover; Odors; Condition of dikes; and presence of rodents (muskrats, burrowing animals)
<input type="checkbox"/> NC <input checked="" type="checkbox"/> C <input type="checkbox"/> A	<ul style="list-style-type: none"> • Daily precipitation records The Regulated Party gathers precipitation records from the DNR Forestry Blackduck Field Station.

Other/Additional comments:

- The facility's NPDES/SDS Permit contains requirements for compliant operations and maintenance for the facility. The facility is encouraged to fully review and frequently reference the permit to ensure fulfillment of the requirements. If the facility has any questions regarding the permit, they are encouraged to contact the MPCA staff assigned to the facility.
- The MPCA is moving to electronic filing and no will no longer be accepting hard copy documents. Email future submittals to wq.submittals.mPCA@state.mn.us.

Letter of Warning

This is a Letter of Warning (LOW) issued by the Minnesota Pollution Control Agency (MPCA) to the City of Blackduck (Regulated Party) for alleged violations of the following provisions of federal regulations, state statutes, rules, or permit conditions at the Regulated Party's Facility located in Blackduck, Beltrami County, Minnesota.

1. State Disposal System (SDS) Permit MN0052302 (Issued October 1, 2019; Expiration September 30, 2029), 5. Permit Requirements, Spray Irrigation, Reporting

5.5.20. The Permittee shall submit a land application of wastewater annual report : Due by January 21 of each year following permit issuance. [Minn. R. 7001.0150, 3(F)]

During the February 26, 2025, file review and Compliance Evaluation Inspection (CEI), the MPCA documented that the Regulated Party failed to submit three out of five spray irrigation annual reports on time on January 21 of each year following permit issuance.

2. SDS Permit MN0052302 (Issued October 1, 2019; Expiration September 30, 2029), 5. Permit Requirements, Total Facility Requirements

5.9.83. Sample Preservation and Procedure. Sample preservation and test procedures for the analysis of pollutants shall conform to 40 CFR Part 136 and Minn. R. 7041.3200. [Minn. R. 7001.0150, 2(B), Minn. R. 7041.3200]

During the February 26, 2025, file review and CEI, the MPCA documented that the Regulated Party failed to calibrate the pH meter with at minimum a two-point calibration over the review period October 2019 to February 2025.

3. SDS Permit MN0052302 (Issued October 1, 2019; Expiration September 30, 2029), 5. Permit Requirements, Total Facility Requirements

5.9.84. Equipment Calibration: Flow meters, pumps, flumes, lift stations or other flow monitoring equipment used for purposes of determining compliance with permit shall be checked and/or calibrated for accuracy at least twice annually. [Minn. R. 7001.0150, 2(B and C)]

During the February 26, 2025, file review and CEI, the MPCA documented that the Regulated Party failed to calibrate influent pumps twice per year over the review period October 2019 to February 2025.

SDS Permit MN0052302 (Issued October 1, 2019; Expiration September 30, 2029), 5. Permit Requirements, Total Facility Requirements

5.9.85. Maintain Records. The Permittee shall keep the records required by this permit for at least three years, including any calculations, original recordings from automatic monitoring instruments, and laboratory sheets. The Permittee shall extend these record retention periods upon request of the MPCA. The Permittee shall maintain records for each sample and measurement. The records shall include the following information:

- a. the exact place, date, and time of the sample or measurement;
- b. the date of analysis;
- c. the name of the person who performed the sample collection, measurement, analysis, or calculation;
- d. the analytical techniques, procedures and methods used; and
- e. the results of the analysis. [Minn. R. 7001.0150, 2(C)].

During the February 26, 2025, file review and CEI, the MPCA documented that the Regulated Party failed to maintain pH records over the over the review period October 2019 to February 2025.

4. SDS Permit MN0052302 (Issued October 1, 2019; Expiration September 30, 2029), 5. Permit Requirements, Total Facility Requirements

5.9.87. Submitting Reports. DMRs, DMR supplemental forms and related attachments must be electronically submitted via MPCA e-Services after authorization is approved.

DMRs and DMR Supplemental Forms shall be electronically submitted by the 21st day of the month following the sampling period or otherwise as specified in this permit. Electronic DMR submittal shall be complete on or before 11:59 PM of the 21st day of the month following the sampling period or as otherwise specified in this permit. A DMR shall be submitted for each required station even if no discharge occurred during the reporting period.

Other reports required by this permit shall be postmarked by the date specified in the permit to: MPCA, Attn: WQ Submittals Center, 520 Lafayette Road North, St Paul Minnesota 551554194. [Minn. R. 7001.0150, 2(B), Minn. R. 7001.0150, 3(H)]

During the February 26, 2025, file review and CEI, the MPCA documented that the Regulated Party failed to submit four discharge monitoring reports (DMR) on time over the review period. See Table One: Late DMR's below.

Table One: Late DMR's

Station	DMR monitoring period	Violation type	Submission due date	Submission received
WS 001	6/1/2024 - 6/30/2024	Late	7/21/2024	7/24/2024
WS 001	11/1/2024 - 11/30/2024	Late	12/21/2024	12/23/2024
WS 002	6/1/2024 - 6/30/2024	Late	7/21/2024	7/24/2024
WS 002	11/1/2024 - 11/30/2024	Late	12/21/2024	12/23/2024

5. SDS Permit MN0052302 (Issued October 1, 2019; Expiration September 30, 2029), 7. Limits and monitoring.

Subject item	Parameter	Discharge limitations							Monitoring requirements		
		Quantity /Loading avg.	Quantity /Loading max.	Quantity /Loading units	Quality /Conc. min.	Quality /Conc. avg.	Quality /Conc. max.	Quality/ Conc. units	Frequency	Sample type	Effective period
WS 001 Influent Waste Stream	BOD, Carbonaceous 05 Day (20 Deg C)					Monitor only. calendar quarter average		milligrams per liter	once per quarter	4-Hour Flow Composite	Mar, Jun, Sep, Dec
WS 001 Influent Waste Stream	Flow		Monitor only. calendar month total	million gallons		Monitor only. calendar month average	Monitor only. calendar month maximum	million gallons per day	once per day	Measurement, Continuous	Jan-Dec
WS 001 Influent Waste Stream	pH						Monitor only. calendar quarter maximum	standard units	once per quarter	Grab	Mar, Jun, Sep, Dec
WS 001 Influent Waste Stream	Precipitation		Monitor only. calendar month total	inches					once per day	Measurement	Jan-Dec
WS 001 Influent Waste Stream	Solids, Total Suspended (TSS)					Monitor only. calendar quarter average		milligrams per liter	once per quarter	4-Hour Flow Composite	Mar, Jun, Sep, Dec

Subject item	Parameter	Discharge limitations							Monitoring requirements		
		Quantity /Loading avg.	Quantity /Loading max.	Quantity /Loading units	Quality /Conc. min.	Quality /Conc. avg.	Quality /Conc. max.	Quality/ Conc. units	Frequency	Sample type	Effective period
WS 002 Effluent to Spray Irrigation Site	Fecal Coliform, MPN or Membrane Filter 44.5C					200 calendar month geometric mean		organisms per 100 milliliter	once per month	Grab	Apr-Nov

During the February 26, 2025, file review and CEI, the MPCA documented that the Regulated Party failed to collect and analyze six influent samples over the review period. See Table Two Missed Samples below. The MPCA documented that there were two exceedances over the review period. See Table Three Exceedances below.

Table Two: Missed Samples:

Station	DMR monitoring period	Parameter
WS 001	9/1/2022 - 9/30/2022	BOD, Carbonaceous 05 Day (20 Deg C) - Calendar Quarter Average [Avg Conc]
WS 001	9/1/2022 - 9/30/2022	Solids, Total Suspended (TSS) - Calendar Quarter Average [Avg Conc]
WS 001	9/1/2022 - 9/30/2022	pH - Calendar Quarter Maximum [Max Conc]
WS 001	12/1/2019 - 12/31/2019	BOD, Carbonaceous 05 Day (20 Deg C) - Calendar Quarter Average [Avg Conc]
WS 001	12/1/2019 - 12/31/2019	Solids, Total Suspended (TSS) - Calendar Quarter Average [Avg Conc]
WS 001	12/1/2019 - 12/31/2019	pH - Calendar Quarter Maximum [Max Conc]

Table Three: Exceedances:

Station	DMR monitoring period	Parameter	Limit	Reported value
WS 002	8/1/2024 - 8/31/2024	Fecal Coliform, MPN or Membrane Filter 44.5C in organisms per 100 milliliter - calendar month geometric mean	200	261
WS 002	8/1/2020 - 8/31/2020	Fecal Coliform, MPN or Membrane Filter 44.5C in organisms per 100 milliliter - calendar month geometric mean	200	2420

To address the alleged violations cited in this LOW, the Regulated Party is to complete the following actions:

1. Within 30 days after receipt of this LOW, the Regulated Party shall submit to the MPCA a plan that includes but not limited to:
 - a. How all spray irrigation reports shall be submitted to the MPCA by January 21 of each year following permit issuance;
 - b. How all Sample Value Spreadsheets and Discharge Monitoring Reports will be submitted by the 21st day of the month following the sampling period according to SDS Permit MN0052302; and
 - c. How the Regulated Party is going to calibrate and/or check the influent pumps twice per year, which can include a contract with a 3rd party. The Regulated Party must keep records of these checks for at least three years.

**STATE OF MINNESOTA
POLLUTION CONTROL AGENCY**

Alana Serviss

This document has been electronically signed.

Alana Serviss
Environmental Specialist
Municipal Division

March 14, 2025

Date signed

Address questions and submittals requested above to:

Alana Serviss
Minnesota Pollution Control Agency
714 Lake Ave, Ste 220
Detroit Lakes, MN 56501-3058
218-846-8120
alana.serviss@state.mn.us

APPENDIX I

SANITARY SEWER TELEVISION

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Blackduck Televising Report

Televising Completed by VEIT on October 14, 2021

Updated: 11/5/2021.

Reference Map



Televising Report for Taping Completed in October 2021 for City of Blackduck

ID	Line Viewed	Description	Direction	Survey Length	Pipe Size	Pipe Type
AAA	1st St NW	From Margaret Ave & 1st St NW to Summit Ave & 1st St NW	Downstream [South]	212'	8"	VCP
AAB	1st St NW	From Summit Ave & 1st St NW to Margaret Ave & 1st St NW	Upstream [North]	140'	8"	VCP
AAC	Morris Ave NW	From 1st St NW & Morris Ave to Main St & Morris Ave	Downstream [East]	91'	6"	VCP
AAD	Morris Ave NW	From 1st St NW & Morris Ave Alley to 1st St & Morris Ave	Upstream [West]	112'	6"	VCP
AAE	Morris Ave NE	From Morris Ave & Alley to Morris Ave Alley & Main St	Downstream [West]	34'	6"	VCP
AAF	Morris Ave NE	From Main St & Morris Ave to Morris Ave & Alley	Upstream [East]	58'	6"	VCP
AAG	Morris Ave NW	From 1st St NW & Morris Ave to Main St & Morris Ave	Downstream [East]	382'	6"	VCP
AAH	2nd St NE	From 2nd St NW South of Northern to 2nd St NW & Margaret	Downstream [South]	41'	6"	VCP
AAI	2nd St NE	From 2nd St NE & Margaret to 2nd St NE & South of Northern	Upstream [North]	29'	6"	VCP
AAJ	2nd St NE	From 2nd St NE & Margaret to 2nd St NE & South of Margaret	Downstream [South]	146'	8"	VCP
AAK	2nd St NE	From 2nd St NE & North of Summit to 2nd St NE & South of Margaret	Downstream [South]	83'	8"	VCP
AAL	Carlson	From 2nd St NW & West of Carlson to 2nd St NW & Carson	Downstream [East]	2'	8"	VCP

AAA; 1st Street NW South from Margaret Ave W toward Summit Ave W [South direction, Downstream]

- ❖ Evidence of infiltration and pipe joint misalignment
- ❖ Some joints shot gasket not in place or even missing
- ❖ Seems pipe itself is not cracked but signs of spalling in many locations
- ❖ This line has effluent depth of an inch or so with evidence that effluent often sits at this depth for considerable length of time
- ❖ Evidence of horizontal misalignment [1:46]; effluent no longer pooling
- ❖ Pipe misalignment at 100.2' [3:32]
- ❖ Joint crack 101.4' [3:51]
- ❖ Vertical misalignment 102.9' [4:15]
- ❖ Many joints look questionable for infiltration and leaking
- ❖ Roots, deposition and pooling 179' [7:50] to end of run
- ❖ Roots especially bad a 210.1' [9:08]
- ❖ Televising could not progress beyond 212'

AAB; 1st Street NW from Summit Ave W toward Margaret Ave W [North Direction, Upstream]

- ❖ First video is of PVC pipe that appear in good condition; notable misalignment of joint between PVC & VCP at 52' [1:25]
- ❖ Cracking along sides of first VCP section
- ❖ Second video starts at 55' north of manhole
- ❖ Visible cracking at pipe ceiling 68.6' [0:30]; pooling too
- ❖ Visible cracking of sidewall 94.0' [1:15]; spalling too
- ❖ Some misalignment of pipe between 100' and beyond; a little pooling at the downstream end of each pipe section
- ❖ Roots starting to show at joints beginning 118' and get progressively worse; bad at 139.5' [2:44]; can see the nearly full obstruction of pipe by roots ahead

AAC; Morris Ave W from 1st Street NW toward Main Street [East Direction, Downstream]

- ❖ Evidence of infiltration at pipe joint [0:14]
- ❖ Joints just look open; pipe segments are less than 3' long and offer many opportunities for infiltration
- ❖ Poor joint 82.8' [2:42]; most joint beyond seem to be leaking
- ❖ Lateral at 90.6' has damage all around it; bad enough that camera had issues going beyond it; section seems to have some horizontal misalignment too

AAD; Morris Ave W from Alley toward 1st Street [?] [West Direction, Upstream]

- ❖ Pooling evident at manhole
- ❖ Joints show damage, scaling and infiltration
- ❖ Profile misalignment 47.6' [1:23]
- ❖ Pooling (half full) 55.3' [1:48]
- ❖ Flowing at 65.9' [2:07]; some scaling—maybe a crack in sidewall
- ❖ Pooling 83' [2:39]; infiltration evident in most joints
- ❖ Flowing at 96.5' [3:14]
- ❖ Pipe section at 97.2' misaligned and scaling
- ❖ Pipe misalignment at 103'
- ❖ Video ends at protruding service pipe [4:12]; same obstruction that ended AAC video

AAE; Morris Ave NE from Alley toward Main Street [West Direction, Downstream]

- ❖ First joint looks tough 7' [0:01]; minor pooling too
- ❖ Evidence of infiltration at joints beginning [0:17]
- ❖ Pooling worsens at camera progresses toward Main Street; though flowing at 20'
- ❖ Pipe appears damaged at lateral 32'6" [1:04]; pipe about a third full (pooling)
- ❖ Cannot move beyond 33.7'

AAF; Morris Ave NE from Main Street toward Alley [East Direction, Upstream]

- ❖ PVC pipe [8"] for the first 50' [1:28]; connection [reducer] looks good
- ❖ Joints beyond show infiltration evidence
- ❖ Misalignment causing obstruction and pooling 56.2' [2:08]
- ❖ Video ends at 58' due to mineralization

AAG; Morris Ave NW from 1st Street NW toward Main Street [East Direction, Downstream]

- ❖ First 30' looks good then joint is misaligned [0:59]; some pooling beyond
- ❖ Pooling ends 56' [1:50]
- ❖ Pooling returns 62' [2:00]; about a third full; gets deeper [about half] at 95' [3:00]
- ❖ Pooling ends around 111' [4:20]
- ❖ Profile undulates as video continues; mineralization throughout all sides of pipe
- ❖ Some joints show infiltration—most do not
- ❖ Water flowing from top of pipe joint 255.9' [11:03]; note that it is raining the day of the video work; lots of scaling at the joint and capped lateral near here
- ❖ Pipe turns to PVC 332.7' [15:20]
- ❖ Returns to VCP at 336.5' [16:23]
- ❖ Pooling begins 338' [16:30]; worsens toward Main St
- ❖ Some deposits begin at 353.5' [17:15]
- ❖ Camera submerged beginning 363' [17:30]
- ❖ Camera reemerges at 371' [17:50]
- ❖ Water dripping from ceiling at 382.5'

AAH; 2nd Street NE from MH south of Northern Ave toward Margaret Ave E [South Direction, Downstream]

- ❖ Some joint misalignment beyond manhole
- ❖ Some infiltration noted
- ❖ Protruding lateral ends video beyond 39'

AAI; 2nd Street NE from Margaret Ave toward Northern Ave [North Direction, Upstream]

- ❖ Pipe looks sound throughout but sections show misalignment
- ❖ Misalignment at 29' ends video session

AAJ; 2nd Street NE from Margaret Ave toward MH Connection South of Margaret [South Direction, Downstream]

- ❖ Blurry video but looks to be PVC all the way—no issues noted

AAK; 2nd Street NE from North of Summit Ave E toward Summit Ave E [South Direction, Downstream]

- ❖ Appears to be PVC pipe; no issues until 76.2' [2:32] where a large deposit is encountered.
- ❖ Appears the joint at 78' is disconnected
- ❖ [?]




AAL; Carlson Ave W [?] from 2nd Street NW toward Main Street [East Direction, Downstream]




- ❖ Seems pipe is disconnected at manhole [?]




PROJECT NAME: BLACKDUCK MN



DATE: 10/14/2021 8:47:00 AM
CAMERA DIRECTION: DOWN STREAM
LENGTH : 212
RUN NUMBER: 1
PIPE SIZE: 8"

START MANHOLE: MARGARET AVE - 1 ST NW
START LOCATION: MARGARET AVE - 1 ST NW
END MANHOLE: SUMMIT AVE - 1 ST NW
END LOCATION: SUMMIT AVE - 1 ST NW
PIPE TYPE: VCP

Distance	Fault Observation	Time	Picture
99.1	LATERAL LEFT CAPPED Position: 9 Severity: None	03:22	 <p> MH MARGARET TO MH SUMMIT A 10/14/2021 BLACKDUCK MN 08:58 LATERAL LEFT CAPPED 99.1 FT </p>
101.4	CRACKS AT THE JOINT Severity: Light	03:45	 <p> MH MARGARET TO MH SUMMIT A 10/14/2021 BLACKDUCK MN 108:58 CRACKS AT THE JOINT 101.4 FT </p>
101.8	LATERAL RIGHT CAPPED Position: 3 Severity: None	04:02	 <p> MH MARGARET TO MH SUMMIT A 10/14/2021 BLACKDUCK MN 08:58 LATERAL RIGHT CAPPED 101.8 FT </p>

Distance	Fault Observation	Time	Picture
135.6	LATERAL RIGHT Position: 2 Severity: None	05:22	
144.0	LATERAL LEFT CAPPED Position: 10 Severity: None	05:53	
146.9	LATERAL RIGHT Position: 2 Severity: None	06:12	




Distance	Fault Observation	Time	Picture
171.1	LATERAL RIGHT CAPPED Position: 2 Severity: None	07:11	
175.9	ROOTS Severity: Light	07:34	
190.6	ROOTS Severity: Moderate	08:17	


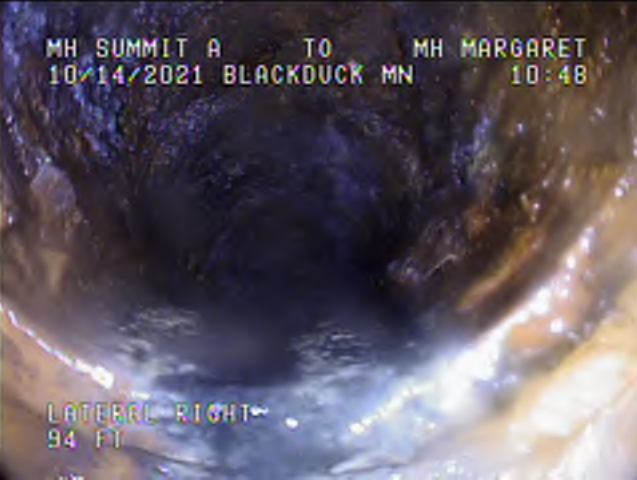

Distance	Fault Observation	Time	Picture
210.4	<p style="text-align: center;">ROOTS Severity: Heavy</p>	09:20	
212.0	<p style="text-align: center;">UNABLE TO PASS ROOTS Severity: None</p>	10:00	




PROJECT NAME: BLACKDUCK MN

DATE: 10/14/2021 9:26:00 AM
CAMERA DIRECTION: UP STREAM
LENGTH : 139.6
RUN NUMBER: 2
PIPE SIZE: 8"

START MANHOLE: SUMMIT AVE - 1 ST NW
START LOCATION: SUMMIT AVE - 1 ST NW
END MANHOLE: MARGARET AVE - 1 ST NW
END LOCATION: MARGARET AVE - 1 ST NW
PIPE TYPE: VCP

Distance	Fault Observation	Time	Picture
51.5	CHANGE TO VCP PIPE Severity: None	01:26	
54.8	LATERAL LEFT CAPPED Position: 9 Severity: None	01:38	
58.2	LATERAL RIGHT CAPPED Position: 2 Severity: None	13	

Distance	Fault Observation	Time	Picture
68.6	<p>CRACKS AT THE JOINT Position: 12 Severity: None</p>	33	
94.0	<p>LATERAL RIGHT Position: 2 Severity: None</p>	01:08	
96.9	<p>LATERAL LEFT CAPPED Position: 10 Severity: None</p>	01:22	

Distance	Fault Observation	Time	Picture
99.7	LATERAL RIGHT CAPPED Position: 2 Severity: None	01:36	
136.1	ROOTS Severity: Moderate	02:23	
139.6	UNABLE TO PASS ROOTS Severity: Average	03:21	

PROJECT NAME: BLACKDUCK MN

DATE: 10/14/2021 11:09:00 AM
CAMERA DIRECTION: DOWN STREAM
LENGTH : 90.9
RUN NUMBER: 3
PIPE SIZE: 6"

START MANHOLE: 1 ST NW - MORRIS AVE
START LOCATION: 1 ST NW - MORRIS AVE
END MANHOLE: MAIN ST - MORRIS AVE
END LOCATION: MAIN ST - MORRIS AVE
PIPE TYPE: VCP

Distance	Fault Observation	Time	Picture
90.6	LATERAL RIGHT Position: 2 Severity: None	03:02	
90.9	UNABLE TO PASS PROTRUDING TAP Severity: None	05:28	

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PROJECT NAME: BLACKDUCK MN

DATE: 10/14/2021 11:25:00 AM

START MANHOLE: 1 ST NW - MORRIS AVE ALLEY

CAMERA DIRECTION: UP STREAM

START LOCATION: 1 ST NW - MORRIS AVE ALLEY

LENGTH : 111.8


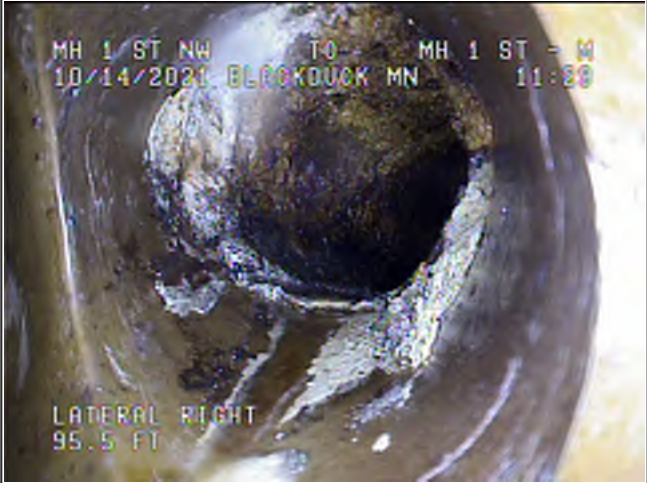

END MANHOLE: 1 ST - MORRIS AVE



RUN NUMBER: 4

END LOCATION: 1 ST - MORRIS AVE

PIPE SIZE: 6"

PIPE TYPE: VCP

Distance	Fault Observation	Time	Picture
51.2	LATERAL LEFT Position: 10 Severity: None	01:35	
95.5	LATERAL RIGHT Position: 2 Severity: None	03:05	
105.6	LATERAL LEFT Position: 10 Severity: None	03:40	

Distance	Fault Observation	Time	Picture
111.8	LATERAL LEFT Position: 10 Severity: None	04:08	
111.8	SAME SPOT FROM OTHER END Severity: None	04:27	

PROJECT NAME: BLACKDUCK MN

DATE: 10/14/2021 11:35:00 AM
 CAMERA DIRECTION: DOWN STREAM

LENGTH : 33.7

RUN NUMBER: 5

PIPE SIZE: 6"

START MANHOLE: MORRIS AVE - ALLEY
 START LOCATION: MORRIS AVE - ALLEY
 END MANHOLE: MORRIS AVE ALLEY - MAIN ST
 END LOCATION: MORRIS AVE ALLEY - MAIN ST
 PIPE TYPE: VCP

Distance	Fault Observation	Time	Picture
32.6	LATERAL RIGHT Position: 2 Severity: None	01:12	
33.7	UNABLE TO PASS PROTRUDING TAP Severity: None	02:36	

PROJECT NAME: BLACKDUCK MN

DATE: 10/14/2021 11:49:00 AM
CAMERA DIRECTION: UP STREAM
LENGTH : 58
RUN NUMBER: 6
PIPE SIZE: 6"

START MANHOLE: MAIN ST - MORRIS AVE
START LOCATION: MAIN ST - MORRIS AVE
END MANHOLE: MORRIS AVE - ALLEY
END LOCATION: MORRIS AVE - ALLEY
PIPE TYPE: VCP

Distance	Fault Observation	Time	Picture
50.8	<p>CHANGED TO 6" PIPE Severity: None</p>	01:42	
58.0	<p>UNABLE TO PASS MINERAL AT THE JOINT Severity: None</p>	02:25	

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PROJECT NAME: BLACKDUCK MN


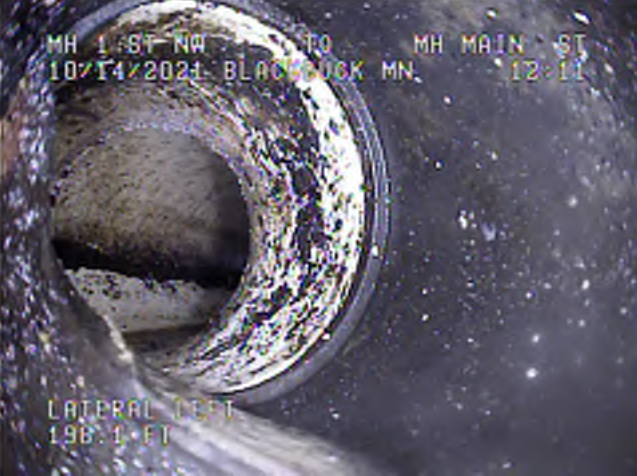

DATE: 10/14/2021 12:01:00 PM
 CAMERA DIRECTION: DOWN STREAM
 LENGTH : 382.5
 RUN NUMBER: 7
 PIPE SIZE: 6"






START MANHOLE: 1 ST NW - MORRIS AVE
 START LOCATION: 1 ST NW - MORRIS AVE
 END MANHOLE: MAIN ST = MORRIS AVE
 END LOCATION: MAIN ST - MORRIS AVE
 PIPE TYPE: VCP

Distance	Fault Observation	Time	Picture
78.6	LATERAL LEFT Position: 11 Severity: None	02:38	
104.3	LATERAL RIGHT Position: 2 Severity: None	03:36	
107.4	LATERAL LEFT Position: 10 Severity: None	03:56	

Distance	Fault Observation	Time	Picture
142.9	LATERAL RIGHT CAPPED Position: 2 Severity: None	05:24	
145.7	LATERAL LEFT Position: 10 Severity: None	05:40	
180.7	LATERAL RIGHT CAPPED Position: 2 Severity: None	07:02	

Distance	Fault Observation	Time	Picture
183.3	LATERAL LEFT Position: 10 Severity: None	07:17	
198.1	LATERAL LEFT Position: 10 Severity: None	08:09	
252.8	LATERAL LEFT Position: 10 Severity: None	10:42	

Distance	Fault Observation	Time	Picture
257.6	LATERAL RIGHT CAPPED Position: 2 Severity: None	11:07	
258.2	LATERAL LEFT Position: 11 Severity: None	11:21	
260.0	LATERAL LEFT CAPPED Position: 10 Severity: None	11:41	

Distance	Fault Observation	Time	Picture
332.7	<p>CHANGE TO PVC PIPE Severity: None Percent: 0</p>	15:18	
336.5	<p>LATERAL LEFT Position: 10 Severity: None</p>	16:09	
382.5	<p>END Inspection Severity: None</p>	18:24	

PROJECT NAME: BLACKDUCK MN

DATE: 10/14/2021 12:36:00 PM

START MANHOLE: 2ND ST NW - SOUTH OF NORTHERN

CAMERA DIRECTION: DOWN STREAM

START LOCATION: 2 ND ST NW SOUTH OF NORTHERN

LENGTH : 41.1

END MANHOLE: 2 ND ST NW - MARGARET

RUN NUMBER: 8

END LOCATION: 2 ND ST NW - MARGARET

PIPE SIZE: 6"

PIPE TYPE: VCP

Distance	Fault Observation	Time	Picture
41.1	LATERAL RIGHT Position: 3 Severity: None	01:27	
41.1	UNABLE TO PASS PROTRUDING TAP Severity: None	01:45	

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PROJECT NAME: BLACKDUCK MN

DATE: 10/14/2021 12:46:00 PM
CAMERA DIRECTION: UP STREAM

START MANHOLE: 2 ND ST NE - MARGARET
START LOCATION: 2 ND ST NE - MARGARET

LENGTH : 28.7

END MANHOLE: 2 ND ST NE - SOUTH OF NORTHERN

RUN NUMBER: 9

END LOCATION: 2 ND ST NE - SOUTH OF NORTHERN

PIPE SIZE: 6"

PIPE TYPE: VCP

Distance	Fault Observation	Time	Picture
27.7	LATERAL RIGHT Position: 2 Severity: None	46	
28.7	UNABLE TO PASS TAP Severity: None	01:51	

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PROJECT NAME: BLACKDUCK MN

DATE: 10/14/2021 12:56:00 PM
CAMERA DIRECTION: DOWN STREAM
LENGTH : 145.6
RUN NUMBER: 10
PIPE SIZE: 8"

START MANHOLE: 2 ND ST NE - MARGARET
START LOCATION: 2 ND ST NE - MARGARET
END MANHOLE: 2 ND ST NE - SOUTH OF MARGARET
END LOCATION: 2 ND ST NE - SOUTH OF MARGARET
PIPE TYPE: VCP

Distance	Fault Observation	Time	Picture
9.9	LATERAL LEFT Position: 10 Severity: None	29	
68.4	LATERAL RIGHT Position: 12 Severity: None	01:55	
101.6	LATERAL LEFT Position: 11 Severity: None	02:48	

Distance	Fault Observation	Time	Picture
142.2	LATERAL LEFT Position: 10 Severity: None	03:44	
145.6	END Inspection Severity: None	04:02	

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PROJECT NAME: BLACKDUCK MN

DATE: 10/14/2021 1:05:00 PM

CAMERA DIRECTION: DOWN STREAM

LENGTH : 83.1

RUN NUMBER: 11

PIPE SIZE: 8"



START MANHOLE: 2 ND ST NE - NORTH OF SUMMIT

START LOCATION: 2 ND ST NE - NORTH OF SUMMIT

END MANHOLE: 2 ND ST NE - SOUTH OF MARGARET

END LOCATION: 2 ND ST NE - SOUTH OF MARGARET

PIPE TYPE: VCP

Distance	Fault Observation	Time	Picture
12.2	<p style="text-align: center;">LATERAL LEFT Position: 10 Severity: None</p>	37	
74.2	<p style="text-align: center;">LATERAL LEFT Position: 10 Severity: None</p>	02:19	
83.1	<p style="text-align: center;">END Inspection Severity: None</p>	03:46	



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PROJECT NAME: BLACKDUCK MN

DATE: 10/14/2021 1:54:00 PM

START MANHOLE: 2 ND ST NW - WEST OF CARLSON

CAMERA DIRECTION: DOWN STREAM

START LOCATION: 2 ND ST NW - WEST OF CARLSON

LENGTH : 2


END MANHOLE: 2 ND ST NW - CARLSON

RUN NUMBER: 12

END LOCATION: 2ND ST NW - CARSON

PIPE SIZE: 8"

PIPE TYPE: VCP

Distance	Fault Observation	Time	Picture
2.0	PIPE SEPERATED Severity: None	45	

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APPENDIX J

FINAL SDS PERMIT MN0052302

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October 1, 2019

The Honorable Rudy Patch
Mayor, City of Blackduck
8 Summit Ave NE
Blackduck, MN 56630

RE: Final SDS Permit Blackduck Wastewater Treatment Facility
Permit No. MN0052302
T149N, R31W, Section 11, Blackduck, Beltrami County, Minnesota

Dear Mayor Patch:

Enclosed is the final permit for the facility identified above. The Minnesota Pollution Control Agency (MPCA) has prepared this permit in accordance with Minn. Stat. chs. 115, 115A, and 116, and Minn. R. chs. 7000, 7001, and 7035.

No written comments were received during the 60-day public comment period.

If you have any questions regarding any of the terms and conditions of the final permit, please contact Amanda Wilkens at 218-316-3881 or by email at amanda.wilkens@state.mn.us.

Sincerely,

Paul C. Scheirer

This document has been electronically signed.

Paul C. Scheirer
Supervisor
Northeast/Northwest Regional Unit
Municipal Division

PCS/AW:jls

Enclosure: Final Permit

cc: Mike Schwanke, City of Blackduck (w/enclosure)
Christina Regas, City of Blackduck (w/enclosure)
Milo Barclay, Hines Township (w/enclosure)
Curt Meyer, Widseth Smith Nolting (w/enclosure)



MINNESOTA POLLUTION CONTROL AGENCY

State Disposal System

MN0052302

Permittee: City of Blackduck
Facility name: Blackduck Wastewater Treatment Facility
Township: Hines **County:** Beltrami
Issuance date: October 1, 2019
Expiration date: September 30, 2029

The state of Minnesota, on behalf of its citizens through the Minnesota Pollution Control Agency (MPCA), authorizes the Permittee to operate a disposal system at the facility named above in accordance with the requirements of this permit.

The goal of this permit is to reduce pollutant levels in point source discharges and protect water quality in accordance with Minnesota statutes and rules.

This permit is effective on the issuance date identified above. This permit expires at midnight on the expiration date identified above.

Signature: Paul C. Scheirer

This document has been electronically signed.

for the Minnesota Pollution Control Agency

Paul C. Scheirer
 Supervisor
 Northeast/Northwest Regional Unit
 Municipal Division

Submit eDMRs

Submit via the MPCA e-Services at
https://rsp.pca.state.mn.us/TEMPO_RSP/Orchestrate.do?initiate=true

Submit WQ reports to:

Electronically: wq.submittals.mPCA@state.mn.us
 Include *Water quality submittals form*:
<https://www.pca.state.mn.us/sites/default/files/wq-wwprm7-71.docx>

Or, by mail:

Attention: WQ Submittals Center
 Minnesota Pollution Control Agency
 520 Lafayette Road North
 St. Paul, MN 55155-4194

Whole Effluent Testing (WET) and Pretreatment Annual Reports must be mailed to the WQ Submittals Center

Questions on this permit?

For eDMR and other permit reporting issues, contact:
 Jennifer Satnik (jennifer.satnik@state.mn.us)
 651-757-2692

For specific permit requirements, please refer to:

Joseph Braun (joseph.braun@state.mn.us) 218-846-8126

Wastewater Permit Program general questions, contact:

MPCA, 651-282-6143 or 1-800-657-3938.

Table of Contents

	Page
1. Permitted facility description	3
2. Location map of permitted facility	4
3. Flow diagram	5
4. Summary of stations and station locations	6
5. Permit requirements	7
6. Submittal action summary	20
7. Limits and monitoring	21
8. Spray Irrigation Site with Soil Monitoring Requirements: LA 301	24

1. Permitted facility description

The Blackduck Wastewater Treatment Facility (Facility) is located at County Road 30 & Tepee Hill Lane, Blackduck, Minnesota 56630, Beltrami County.

The application and plans indicate that the existing Facility consists of a lift station containing two submersible pumps, 11,500 feet of eight-inch C-900 PVC force main, a three-cell stabilization pond system, pump station, irrigation point, four center pivot spray irrigation units, two solid set irrigation guns, and a spray irrigation site.

The Facility is designed to treat an annual average design flow of 125,500 gallons per day with a five-day carbonaceous biochemical oxygen demand (CBOD₅) strength of 204 milligrams per liter. The stabilization pond system consists of two primary cells of 5.0 acres each and one secondary cell of 13.1 acres, all measured at the four-foot depth level. The stabilization pond system provides a total detention time of 240 days at design flow.

Treated wastewater is pumped north from the effluent pump station to four center pivot irrigators that discharge the wastewater to the spray irrigation site during the growing season, which is April to November. The spray irrigation site is 158 acres.

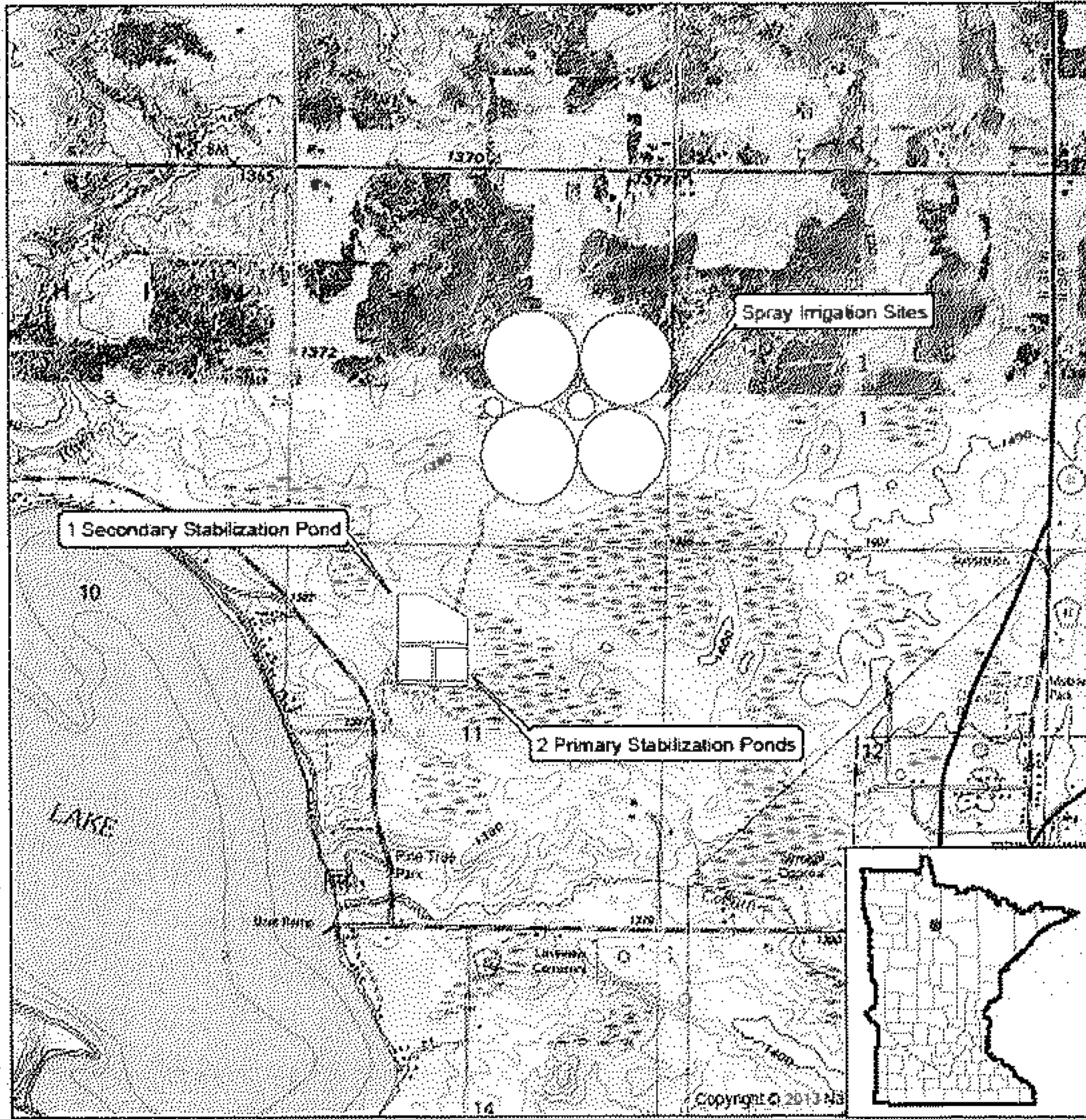
A tile drainage system is used to lower the groundwater table in the area of the spray irrigation site. The drain tile system discharges to a lowland area located southwest of the spray irrigation site.

There are no designed bypass points in the disposal system and no discharge of wastewater to surface waters. This is a Class D facility.

2. Location map of permitted facility

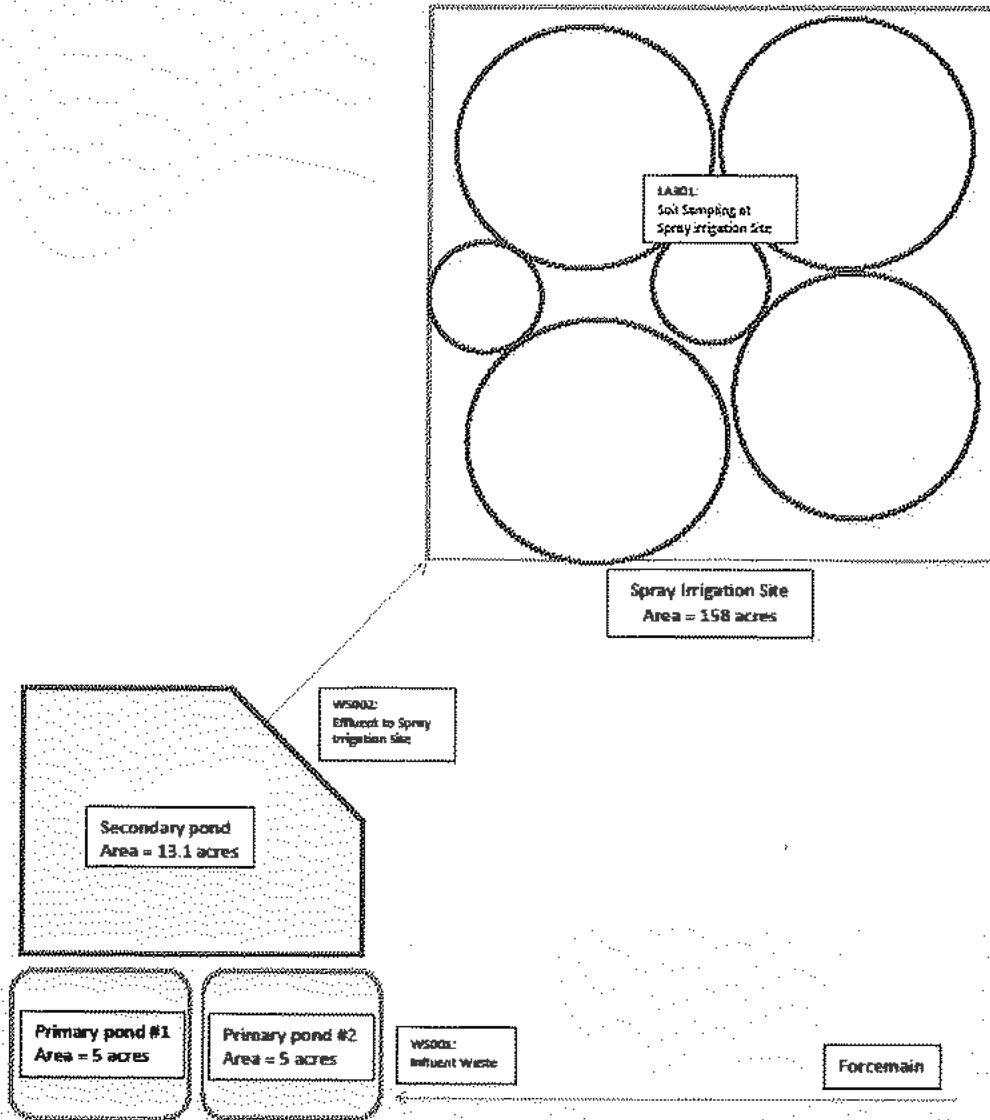
Topographic Map of Permitted Facility

MN0052302: Blackduck Wastewater Treatment Facility
T149N, R31W, Section 11
Hines Township, Beltrami County, Minnesota



Map produced by: MPCA Staff, 5/1/2019
Source: USGS Quad
Scale: 1:24,000

3. Flow diagram



4. Summary of stations and station locations

Station	Type of station	Local name	PLS location
LA 301	Application Site, Spray with Soils Tests	Soil Sampling at Spray Irrigation Site	T149N, R31W, S02, SE Quarter
WS 001	Influent Waste	Influent Waste Stream	T149N, R31W, S11, NW Quarter
WS 002	Intermediate: WW to Land	Effluent to Spray Irrigation Site	T149N, R31W, S11, NW Quarter

5. Permit requirements

WS 001	Influent Waste	Waste Stream: Spray Irrigation Influent Requirements	
	5.1.1	The Permittee shall submit a monthly DMR : Due by 21 days after the end of each calendar month following permit issuance. [Minn. R. 7001.0150, Subp. 2(B)]	
	5.1.2	Sampling Location. [Minn. R. 7001.0150, Subp. 2(B)]	
	5.1.3	Samples for Station WS 001 shall be taken at a point representative of the total influent flow to the system and shall be collected in the sewer system prior to the primary cell. [Minn. R. 7001.0150, Subp. 2(B)]	
	5.1.4	The Permittee shall submit monitoring results in accordance with the limits and monitoring requirements for this station. If conditions are such that no sample can be acquired, the Permittee shall report "No Flow" or "No Discharge" on Discharge Monitoring Report (DMR) and shall add a Comments attachment to the DMR detailing why the sample was not collected. [Minn. R. 7001.0150, Subp. 2(B)]	
		Facility Specific Requirements	
	5.2.5	Parameters that have a monitoring frequency of once per quarter and an effective period of Mar, Jun, Sep, Dec may be taken any time during the calendar quarter but must be reported on the designated month's DMR (e.g. the sample for the first calendar quarter of Jan-Mar will be reported on the March DMR). [Minn. R. 7001]	
WS 002	Intermediate: WW to Land	Waste Stream: Spray Irrigation Pond Effluent Requirements	
	5.3.1	The Permittee shall submit a monthly DMR : Due by 21 days after the end of each calendar month following permit issuance. [Minn. R. 7001.0150, Subp. 2(B)]	
	5.3.2	Sampling Location. [Minn. R. 7001.0150, Subp. 2(B)]	
	5.3.3	Samples for Station WS 002 shall be taken at the final outlet control structure prior to the spray irrigation site. [Minn. R. 7001.0150, Subp. 2(B)]	
	5.3.4	The Permittee shall submit monitoring results in accordance with the limits and monitoring requirements for this station. If conditions are such that no sample can be acquired, the Permittee shall report "No Flow" or "No Discharge" on Discharge Monitoring Report (DMR) and shall add a Comments attachment to the DMR detailing why the sample was not collected. [Minn. R. 7001.0150, Subp. 2(B)]	
MN0052302	Blackduck WWTP	Waste Stream Station General Requirements	
	5.4.1	Analysis Requirements. [Minn. R. 7001]	
	5.4.2	pH analysis shall be conducted within 15 minutes of sample collection. [Minn. R. 7053]	
	5.4.3	Representative Samples. [Minn. R. 7001]	
	5.4.4	Grab and composite samples shall be collected at a point representative of total influent flow to the system. [Minn. R. 7001]	
			Spray Irrigation
	5.5.5	Authorization. [Minn. R. 7001]	
	5.5.6	This chapter authorizes the Permittee to apply treated wastewater, as described in the 'Facility Description' section of this permit, to land application sites using a spray irrigation system. This activity is limited by the 'Limits and Monitoring' section of this permit, as well as the other terms and conditions of this permit. [Minn. R. 7001.0150, 3(E)]	
5.5.7	Wastewater Land Application System Management. [Minn. R. 7001]		

5.5.8	The wastewater flow to a land application site shall not have physical or chemical characteristics that prevent the proper operation of the land disposal system. The wastewater shall be free of material that interferes with the operation of nozzles, orifices or flow measurement devices. [Minn. R. 7001.0150, 3(F)]
5.5.9	Wastewater shall be applied so as not to harm vegetation and so that prolonged saturated soil conditions do not develop due to the application. Wastewater shall not be applied during precipitation periods. [Minn. R. 7001.0150, 3(F)]
5.5.10	A cover crop of alfalfa shall be maintained on the sprayfield during the entire application season unless otherwise approved by the MPCA. [Minn. R. 7001.0150, 3(F)]
5.5.11	Wastewater shall not be applied after the cover crop has become dormant as a result of frost or below freezing temperatures. [Minn. R. 7001.0150, 3(F)]
5.5.12	The Permittee shall prevent the surface runoff of wastewater, and precipitation runoff mixed with wastewater, from the land application site(s). The Permittee shall provide runoff collection and re-application systems as appropriate to prevent the discharge of surface runoff. [Minn. R. 7001.0150, 3(F)]
5.5.13	If odor or aerosol drift resulting from operation of the wastewater disposal system creates a nuisance condition, the Permittee shall immediately take appropriate action to control or abate the odor or aerosol drift. The Permittee shall notify the MPCA of a nuisance condition within five (5) days of discovery. [Minn. R. 7001.0150, 3(F)]
5.5.14	Tile inlets shall be capped during spray irrigation events. [Minn. R. 7001.0150, 3(F)]
5.5.15	Best management practices shall be utilized for all crops. The Permittee shall utilize the facility's Operation and Maintenance Manual, the Sprayfield Management Plan, and the most recent recommendations of the Minnesota Extension Service, University of Minnesota, for managing nitrogen for crop production on irrigated soils. Soil test results shall also be utilized for fertilizer recommendations. [Minn. R. 7001.0150, 3(F)]
5.5.16	If any changes are made to the facilities permitted spray irrigation site the Permittee is required to notify the MPCA and update the facilities sprayfield management plan. This plan shall be kept on-site and made available upon MPCA request. [Minn. R. 7001.0150, 3(F)]
5.5.17	Spray Irrigation Outside of Acceptable Land Application Periods. [Minn. R. 7001]
5.5.18	If conditions require spray irrigation outside of the effective period designated in the limits and monitoring section of this permit or if an emergency condition exists, the Permittee shall submit to the MPCA the "Spray Irrigation/Rapid Infiltration Basin Discharge Not Authorized Within Permit" form found on the MPCA's website at: http://www.pca.state.mn.us/index.php/water/water-types-and-programs/wastewater/index.html . The form shall be submitted to the MPCA at least two weeks prior to needing to spray irrigate. [Minn. R. 7001.0150, 3(F)]
5.5.19	Reporting. [Minn. R. 7001]
5.5.20	The Permittee shall submit a land application of wastewater annual report : Due by January 21 of each year following permit issuance. [Minn. R. 7001.0150, 3(F)]

5.5.21	The Land Application of Wastewater Annual Report shall include the following information: a. A description of the treatment system, including any changes made during the year. b. A description of system operation during the past year, including the following: i. nutrient and hydraulic loading; ii. irrigation scheduling and intensity; iii. crop harvesting; and iv. problems encountered and any remedial actions. c. A description of system maintenance during the past year, including the following: i. crop types and yields; and ii. irrigation equipment. d. A summarization of monitoring results obtained during the past year from the soil monitoring requirements. e. An analysis of the information submitted, and recommendations for changes, including the following: i. analysis of the year's operation; and ii. proposed changes for the coming year's operation. [Minn. R. 7001.0150, 3(F)]
	Spray Irrigation: Soils
5.6.22	Sampling Location. [Minn. R. 7001]
5.6.23	Samples for Station LA 301 shall be taken at the spray irrigation field. [Minn. R. 7001.0150, 2(B)]
5.6.24	Soil Samples. [Minn. R. 7001]
5.6.25	Soil samples shall be taken in the spring before the first irrigation and before the first application of commercial or other supplemental fertilizer for that year. [Minn. R. 7001.0150, 2(B)]
5.6.26	Soil samples shall be a composite of a mixture of 15 to 20 equally proportioned subsamples taken from a 0- to 8-inch core. At least one composite sample shall be collected for each 40 acres on the permitted land application site. [Minn. R. 7001.0150, 2(B)]
5.6.27	Application Rates. [Minn. R. 7001]
5.6.28	Nitrogen and sodium land application rate limits apply to the sum of all sources of nitrogen or sodium applied to a permitted application site. [Minn. R. 7001.0150, 3(F)]
5.6.29	If nitrogen or sodium are applied to a permitted land application site from other sources including commercial fertilizer, manure, silage, sewage or wastewater treatment solids and sludges, then these other nitrogen or sodium sources shall be included in the sum of nitrogen or sodium applied to determine compliance with application rate limits at that site. [Minn. R. 7001.0150, 3(F)]
5.6.30	The nitrogen application rate shall be calculated as the sum of the total annual mass Kjeldahl nitrogen and nitrate-plus-nitrite nitrogen applied to the site, divided by the acreage of the site. [Minn. R. 7001.0150, 3(F)]
	Pond System
5.7.31	Bypass Structures. [Minn. R. 7001]
5.7.32	All structures capable of bypassing the treatment system shall be manually controlled and kept locked at all times. [Minn. R. 7001.0150, 3(F)]
5.7.33	Sanitary Sewer Extension Permit. [Minn. R. 7001]
5.7.34	The Permittee may be required to obtain a Sanitary Sewer Extension Permit from the MPCA for any addition, extension or replacement to the sanitary sewer. If a sewer extension permit is required, construction may not begin until plans and specifications have been submitted and a written permit is granted except as allowed in Minn. Stat. 115.07, Subd. 3(b). [Minn. R. 7001.0150, 3(F)]
5.7.35	Operator Certification. [Minn. R. 7001]
5.7.36	The Permittee shall provide a Class D state certified operator who is in direct responsible charge of the operation, maintenance and testing functions required to ensure compliance with the terms and conditions of this permit. [Minn. R. 9400.0400, 1(A)]

5.7.37	If the Permittee chooses to meet operator certification requirements through a contractual agreement, the Permittee shall provide a copy of the contract to the MPCA, WQ Submittals Center. The contract shall include the certified operator's name, certificate number, company name if appropriate, the period covered by the contract and provisions for renewal; the duties and responsibilities of the certified operator; the duties and responsibilities of the permittee; and provisions for notifying the MPCA 30 days in advance of termination if the contract is terminated prior to the expiration date. [Minn. R. 9400.0400, 1(A)]
5.7.38	The Permittee shall notify the MPCA within 30 days of a change in operator certification or contract status. [Minn. R. 7001.0150, 3(F)]
5.7.39	Ponds - Observations. [Minn. R. 7001]
5.7.40	The Permittee shall inspect the pond system weekly, and shall take measurements of pond water depth, estimate the coverage of aquatic plants, floating mats and ice cover on the surface of the ponds, and note odors, the condition of the dikes and the presence of muskrats. The Permittee shall maintain records of these weekly inspections for the last three (3) years, and submit the results on the Discharge Monitoring Report (DMR) supplemental form. [Minn. R. 7001.0150, 3(F)]
5.7.41	The Permittee shall maintain daily precipitation records. [Minn. R. 7001.0150, 3(F)]
	Pretreatment: Undelegated Requirements
5.8.42	Pretreatment - Definitions. [Minn. R. 7049]
5.8.43	An "Individual Control Mechanism" is a document, such as an agreement or permit, that imposes limitations or requirements on an individual industrial user of the POTW. [Minn. R. 7049]
5.8.44	"Significant Industrial User" (SIU) means any industrial user that: <ul style="list-style-type: none"> a. discharges 25,000 gallons per day or more of process wastewater; b. contributes a load of five (5) % or more of the capacity of the POTW; or c. is designated as significant by the Permittee or the MPCA on the basis that the SIU has a reasonable potential to adversely impact the POTW, or the quality of its effluent or residuals. [Minn. R. 7049]
5.8.45	Pretreatment - Permittee Responsibility to Control Users. [Minn. R. 7049]
5.8.46	It is the Permittee's responsibility to regulate the discharge from users of its wastewater treatment facility. The Permittee shall prevent any pass through of pollutants or any inhibition or disruption of the Permittee's facility, its treatment processes, or its sludge processes or disposal that contribute to the violation of the conditions of this permit or any federal or state law or regulation limiting the release of pollutants from the POTW. [Minn. R. 7049]
5.8.47	The Permittee shall prohibit the discharge of the following to its wastewater treatment facility: <ul style="list-style-type: none"> a. pollutants which create a fire or explosion hazard, including any discharge with a flash point less than 60 degrees C (140 degrees F); b. pollutants which would cause corrosive structural damage to the POTW, including any waste stream with a pH of less than 5.0; c. solid or viscous pollutants which would obstruct flow; d. heat that would inhibit biological activity, including any discharge that would cause the temperature of the waste stream at the POTW treatment plant headwork's to exceed 40 degrees C (104 degrees F); e. pollutants which produce toxic gases, vapors, or fumes that may endanger the health or safety of workers; or f. any pollutant, including oxygen demanding pollutants such as biochemical oxygen demand, released at a flow rate or pollutant concentration that will cause interference or pass through. [Minn. R. 7049]
5.8.48	The Permittee shall prohibit new discharges of non-contact cooling waters unless there is no cost effective alternative. Existing discharges of non-contact cooling water to the Permittee's wastewater treatment facility shall be eliminated, where elimination is cost-effective, or where an infiltration/inflow analysis and sewer system evaluation survey indicates the need for such removal. [Minn. R. 7049]

5.8.49	If the Permittee accepts trucked-in wastes, the Permittee shall evaluate the trucked in wastes prior to acceptance in the same manner as it monitors sewered wastes. The Permittee shall accept trucked-in wastes only at specifically designated points. [Minn. R. 7049]
5.8.50	Pollutant of concern means a pollutant that is or may be discharged by an industrial user that is, or reasonably should be of concern on the basis that it may cause the permittee to violate any permit limits on the release of pollutants. The following pollutants shall be evaluated to determine if they should be pollutants of concern: pollutants limited in this permit, pollutants for which monitoring is required in this permit, pollutants that are likely to cause inhibition of the Permittee's POTW, pollutants which may interfere with sludge disposal, and pollutants for which the Permittee's treatment facility has limited capacity. [Minn. R. 7049]
5.8.51	Control of Significant Industrial Users. [Minn. R. 7049]
5.8.52	The Permittee shall impose pretreatment requirements on SIUs which will ensure compliance with all applicable effluent limitations and other requirements set forth in this permit or any federal or state law or regulation limiting the release of pollutants from the POTW. These requirements shall be applied to SIUs by means of an individual control mechanism. [Minn. R. 7049]
5.8.53	The Permittee shall not knowingly enter into an individual control mechanism with any user that would allow the user to contribute an amount or strength of wastewater that would cause violation of any limitation or requirement in the permit, or any applicable federal, state or local law or regulation. [Minn. R. 7049]
5.8.54	Monitoring of Significant Industrial Users. [Minn. R. 7049]
5.8.55	The Permittee shall obtain from SIUs specific information on the quality and quantity of the SIU's discharges to the Permittee's POTW. Except where specifically requested by the Permittee and approved by the MPCA, this information shall be obtained by means of representative monitoring conducted by the Permittee or by the SIU under requirements imposed by the Permittee in the SIU's individual control mechanism. Monitoring performed to comply with this requirement shall include all pollutants for which the SIU is significant and shall be done at a frequency commensurate with the significance of the SIU. [Minn. R. 7049]
5.8.56	Reporting and Notification. [Minn. R. 7049]
5.8.57	The Permittee shall submit a pretreatment annual report : Due by 31 days after the end of each calendar year following permit issuance if a SIU discharges to the POTW during a given calendar year. [Minn. R. 7049]
5.8.58	<p>The Pretreatment Annual Report shall be submitted on forms provided by the agency or shall provide equivalent information.</p> <p>The Permittee shall submit the pre-treatment report to the following address:</p> <p>MPCA Attn: WQ Submittals Center 520 Lafayette Road North St. Paul, Minnesota 55155-4194. [Minn. R. 7049]</p>
5.8.59	<p>The Permittee shall notify the MPCA in writing of any:</p> <ul style="list-style-type: none"> a. SIU of the Permittee's POTW which has not been previously disclosed to the MPCA; b. anticipated or actual changes in the volume or quality of discharge by an industrial user that could result in the industrial user becoming an SIU as defined in this chapter; or c. anticipated or actual changes in the volume or quality of discharges by a SIU that would require changes to the SIU's required local limits. <p>This notification shall be submitted within 30 days of identifying the IU as a SIU. Where changes are proposed, they shall be submitted prior to changes being made. [Minn. R. 7049]</p>

5.8.60	<p>Upon notifying the MPCA of a SIU or change in a SIU discharge as required above, the Permittee shall submit the following information on forms provided by the agency or in a comparable format:</p> <ul style="list-style-type: none"> a. the identity of the SIU and a description of the SIU's operation and process; b. a characterization of the SIU's discharge; c. the required local limits that will be imposed on the SIU; d. a technical justification of the required local limits; and e. a plan for monitoring the SIU which is consistent with monitoring requirements in this chapter. [Minn. R. 7049]
5.8.61	<p>In addition, the Permittee shall, upon request, submit the following to the MPCA for approval:</p> <ul style="list-style-type: none"> a. additional information on the SIU, its processes and discharge; b. a copy of the individual control mechanism used to control the SIU; c. the Permittee's legal authority to be used for regulating the SIU; and d. the Permittee's procedures for enforcing the requirements imposed on the SIU. [Minn. R. 7049]
5.8.62	<p>The Permittee shall notify MPCA of any of its industrial users that may be subject to national categorical pretreatment standards. [Minn. R. 7049]</p>
5.8.63	<p>This permit may be modified in accordance with Minnesota Rules, ch. 7001 to require development of a pretreatment program approvable under the Federal General Pretreatment Regulation (40 CFR 403). [Minn. R. 7049]</p>
Total Facility Requirements (SDS)	
5.9.64	<p>No Discharge. There shall be no point source discharge to surface water from the permitted activity. [Minn. R. 7001]</p>
5.9.65	<p>Definitions. Refer to the 'Permit Users Manual' found on the MPCA website (www.pca.state.mn.us) for standard definitions. [Minn. R. 7001]</p>
5.9.66	<p>Incorporation by Reference. The following applicable federal and state laws are incorporated by reference in this permit, are applicable to the Permittee, and are enforceable parts of this permit: 40 CFR pts. 122.41, 122.42, 136, 403 and 503; Minn. R. pts. 7001, 7041, 7045, 7050, 7052, 7053, 7060, and 7080; and Minn. Stat. ch. 115 and 116. [Minn. R. 7001]</p>
5.9.67	<p>Permittee Responsibility. The Permittee shall perform the actions or conduct the activity authorized by the permit in compliance with the conditions of the permit and, if required, in accordance with the plans and specifications approved by the Agency. [Minn. R. 7001.0150, subp. 3(E)]</p>
5.9.68	<p>Toxic Discharges Prohibited. Whether or not this permit includes effluent limitations for toxic pollutants, the Permittee shall not discharge a toxic pollutant except according to Code of Federal Regulations, Title 40, sections 400 to 460 and Minnesota Rules 7050, 7052, 7053 and any other applicable MPCA rules. [Minn. R. 7001.1090, subp. 1(A)]</p>
5.9.69	<p>Nuisance Conditions Prohibited. The Permittee's discharge shall not cause any nuisance conditions including, but not limited to: floating solids, scum and visible oil film; acutely toxic conditions to aquatic life, or other adverse impact on the receiving water. [Minn. R. 7050.0210, subp. 2]</p>
5.9.70	<p>Property Rights. This permit does not convey a property right or an exclusive privilege. [Minn. R. 7001.0150, subp. 3(C)]</p>
5.9.71	<p>Liability Exemption. In issuing this permit, the state and the MPCA assume no responsibility for damage to persons, property, or the environment caused by the activities of the Permittee in the conduct of its actions, including those activities authorized, directed, or undertaken under this permit. To the extent the state and the MPCA may be liable for the activities of its employees, that liability is explicitly limited to that provided in the Tort Claims Act. [Minn. R. 7001.0150, subp. 3(O)]</p>
5.9.72	<p>The MPCA's issuance of this permit does not obligate the MPCA to enforce local laws, rules, or plans beyond what is authorized by Minnesota Statutes. [Minn. R. 7001.0150, subp. 3(D)]</p>
5.9.73	<p>Liabilities. The MPCA's issuance of this permit does not release the Permittee from any liability, penalty or duty imposed by Minnesota or federal statutes or rules or local ordinances, except the obligation to obtain the permit. [Minn. R. 7001.0150, subp. 3(A)]</p>

5.9.74	The issuance of this permit does not prevent the future adoption by the MPCA of pollution control rules, standards, or orders more stringent than those now in existence and does not prevent the enforcement of these rules, standards, or orders against the Permittee. [Minn. R. 7001.0150, subp. 3(B)]
5.9.75	Severability. The provisions of this permit are severable and, if any provisions of this permit or the application of any provision of this permit to any circumstance are held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby. [Minn. R. 7001]
5.9.76	Compliance with Other Rules and Statutes. The Permittee shall comply with all applicable air quality, solid waste, and hazardous waste statutes and rules in the operation and maintenance of the facility. [Minn. R. 7001]
5.9.77	Inspection and Entry. When authorized by Minn. Stat. ch. 115.04; 115B.17, subd. 4; and 116.091, and upon presentation of proper credentials, the agency, or an authorized employee or agent of the agency, shall be allowed by the Permittee to enter at reasonable times upon the property of the Permittee to examine and copy books, papers, records, or memoranda pertaining to the construction, modification, or operation of the facility covered by the permit or pertaining to the activity covered by the permit; and to conduct surveys and investigations, including sampling or monitoring, pertaining to the construction, modification, or operation of the facility covered by the permit or pertaining to the activity covered by the permit. [Minn. R. 7001.0150, subp. 3(I)]
5.9.78	Control Users. The Permittee shall regulate the users of its wastewater treatment facility so as to prevent the introduction of pollutants or materials that may result in the inhibition or disruption of the conveyance system, treatment facility or processes, or disposal system that would contribute to the violation of the conditions of this permit or any federal, state or local law or regulation. [Minn. R. 7001.0150, subp. 3(F)]
5.9.79	Sampling. [Minn. R. 7001]
5.9.80	Representative Sampling. Samples and measurements required by this permit shall be conducted as specified in this permit and shall be representative of the discharge or monitored activity. [Minn. R. 7001.0150, 2(B)]
5.9.81	Additional Sampling. If the Permittee monitors more frequently than required, the results and the frequency of monitoring shall be reported on the Discharge Monitoring Report (DMR) or another MPCA-approved form for that reporting period. [Minn. R. 7001.1090, subp. 1(E)]
5.9.82	Certified Laboratory. A laboratory certified by the Minnesota Department of Health and/or registered by the MPCA shall conduct analyses required by this permit. Analyses of dissolved oxygen, pH, temperature, specific conductance, and total residual oxidants (chlorine, bromine) do not need to be completed by a certified laboratory but shall comply with manufacturers specifications for equipment calibration and use. [Minn. R. 4740.2010, Minn. R. 4740.2050 through 2120]
5.9.83	Sample Preservation and Procedure. Sample preservation and test procedures for the analysis of pollutants shall conform to 40 CFR Part 136 and Minn. R. 7041.3200. [Minn. R. 7001.0150, 2(B), Minn. R. 7041.3200]
5.9.84	Equipment Calibration: Flow meters, pumps, flumes, lift stations or other flow monitoring equipment used for purposes of determining compliance with permit shall be checked and/or calibrated for accuracy at least twice annually. [Minn. R. 7001.0150, 2(B and C)]
5.9.85	Maintain Records. The Permittee shall keep the records required by this permit for at least three years, including any calculations, original recordings from automatic monitoring instruments, and laboratory sheets. The Permittee shall extend these record retention periods upon request of the MPCA. The Permittee shall maintain records for each sample and measurement. The records shall include the following information: a. the exact place, date, and time of the sample or measurement; b. the date of analysis; c. the name of the person who performed the sample collection, measurement, analysis, or calculation; d. the analytical techniques, procedures and methods used; and e. the results of the analysis. [Minn. R. 7001.0150, 2(C)]

5.9.86	<p>Completing Reports. The Permittee shall submit the results of the required sampling and monitoring activities on the forms provided, specified, or approved by the MPCA. The information shall be recorded in the specified areas on those forms and in the units specified.</p> <p>Required forms may include DMR Supplemental/Sample Value Form Individual values for each sample and measurement shall be recorded on the DMR Supplemental/Sample Value Form which, if required, will be provided by the MPCA. DMR Supplemental/Sample Value Forms shall be submitted with the appropriate DMRs. You may design and use your own supplemental form; however it shall be approved by the MPCA. Note: Required summary information shall also be recorded on the DMR. Summary information that is submitted ONLY on the DMR Supplemental/Sample Value Form does not comply with the reporting requirements. [Minn. R. 7001.1090, 1(D), Minn. R. 7001.150, 2(B)]</p>
5.9.87	<p>Submitting Reports. DMRs, DMR supplemental forms and related attachments must be electronically submitted via MPCA e-Services after authorization is approved.</p> <p>DMRs and DMR Supplemental Forms shall be electronically submitted by the 21st day of the month following the sampling period or otherwise as specified in this permit. Electronic DMR submittal shall be complete on or before 11:59 PM of the 21st day of the month following the sampling period or as otherwise specified in this permit. A DMR shall be submitted for each required station even if no discharge occurred during the reporting period.</p> <p>Other reports required by this permit shall be postmarked by the date specified in the permit to: MPCA, Attn: WQ Submittals Center, 520 Lafayette Road North, St Paul Minnesota 551554194. [Minn. R. 7001.0150, 2(B), Minn. R. 7001.0150, 3(H)]</p>
5.9.88	<p>Incomplete or Incorrect Reports. The Permittee shall immediately submit an electronically amended report or DMR to the MPCA upon discovery by the Permittee or notification by the MPCA that it has submitted an incomplete or incorrect report or DMR. The amended report or DMR shall contain the missing or corrected data along with a cover letter explaining the circumstances of the incomplete or incorrect report. If it is impossible to electronically amend the report or DMR, the Permittee shall immediately notify the MPCA and the MPCA will provide direction for the amendment submittals. [Minn. R. 7001.0150, 3(G)]</p>
5.9.89	<p>Required Signatures. All DMRs, forms, reports, and other documents submitted to the MPCA shall be signed by the Permittee or the duly authorized representative of the Permittee. Minn. R. 7001.0150, subp. 2, item D. The person or persons that sign the DMRs, forms, reports or other documents shall certify that he or she understands and complies with the certification requirements of Minn. R. 7001.0070 and 7001.0540, including the penalties for submitting false information. Technical documents, such as design drawings and specifications and engineering studies required to be submitted as part of a permit application or by permit conditions, shall be certified by a registered professional engineer. [Minn. R. 7001.0540]</p>
5.9.90	<p>Detection Level. The Permittee shall report monitoring results below the reporting limit (RL) of a particular instrument as "<" the value of the RL. For example, if an instrument has a RL of 0.1 mg/L and a parameter is not detected at a value of 0.1 mg/L or greater, the concentration shall be reported as "<0.1 mg/L." "Non-detected," "undetected," "below detection limit," and "zero" are unacceptable reporting results, and are permit reporting violations.</p> <p>Where sample values are less than the level of detection and the permit requires reporting of an average, the Permittee shall calculate the average as follows:</p> <ol style="list-style-type: none">If one or more values are greater than the level of detection, substitute zero for all nondetectable values to use in the average calculation.If all values are below the level of detection, report the averages as "<" the corresponding level of detection.Where one or more sample values are less than the level of detection, and the permit requires reporting of a mass, usually expressed as kg/day, the Permittee shall substitute zero for all nondetectable values. [Minn. R. 7001.0150, 2(B)]

5.9.91	Records. The Permittee shall, when requested by the Agency, submit within a reasonable time the information and reports that are relevant to the control of pollution regarding the construction, modification, or operation of the facility covered by the permit or regarding the conduct of the activity covered by the permit. [Minn. R. 7001.0150, 3(H)]
5.9.92	Confidential Information. Except for data determined to be confidential according to Minn. Stat. ch. 116.075, subd. 2, all reports required by this permit shall be available for public inspection. Effluent data shall not be considered confidential. To request the Agency maintain data as confidential, the Permittee shall follow Minn. R. 7000.1300. [Minn. R. 7000.1300]
5.9.93	Noncompliance and Enforcement. [Minn. R. 7001]
5.9.94	Subject to Enforcement Action and Penalties. Noncompliance with a term or condition of this permit subjects the Permittee to penalties provided by federal and state law set forth in section 309 of the Clean Water Act; United States Code, title 33, section 1319, as amended; and in Minn. Stat. ch. 115.071 and 116.072, including monetary penalties, imprisonment, or both. [Minn. R. 7001.1090, 1(B)]
5.9.95	Criminal Activity. The Permittee may not knowingly make a false statement, representation, or certification in a record or other document submitted to the Agency. A person who falsifies a report or document submitted to the Agency, or tampers with, or knowingly renders inaccurate a monitoring device or method required to be maintained under this permit is subject to criminal and civil penalties provided by federal and state law. [Minn. R. 7001.0150, 3(G), Minn. R. 7001.1090, 1(G and H), Minn. Stat. ch. 609.671, 1]
5.9.96	Noncompliance Defense. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. [Minn. R. 7001]
5.9.97	Effluent Violations. If sampling by the Permittee indicates a violation of any discharge limitation specified in this permit, the Permittee shall immediately make every effort to verify the violation by collecting additional samples, if appropriate, investigate the cause of the violation, and take action to prevent future violations. If the permittee discovers that noncompliance with a condition of the permit has occurred which could endanger human health, public drinking water supplies, or the environment, the Permittee shall within 24 hours of the discovery of the noncompliance, orally notify the commissioner and submit a written description of the noncompliance within 5 days of the discovery. The written description shall include items a. through e., as listed below. If the Permittee discovers other non-compliance that does not explicitly endanger human health, public drinking water supplies, or the environment, the non-compliance shall be reported during the next reporting period to the MPCA with its Discharge Monitoring Report (DMR). If no DMR is required within 30 days, the Permittee shall submit a written report within 30 days of the discovery of the noncompliance. This description shall include the following information: a. a description of the event including volume, duration, monitoring results and receiving waters; b. the cause of the event; c. the steps taken to reduce, eliminate and prevent reoccurrence of the event; d. the exact dates and times of the event; and e. steps taken to reduce any adverse impact resulting from the event. [Minn. R. 7001.150, 3(K)]

5.9.98	<p>Upset Defense. In the event of temporary noncompliance by the Permittee with an applicable effluent limitation resulting from an upset at the Permittee's facility due to factors beyond the control of the Permittee, the Permittee has an affirmative defense to an enforcement action brought by the Agency as a result of the noncompliance if the Permittee demonstrates by a preponderance of competent evidence:</p> <ul style="list-style-type: none"> a. the specific cause of the upset; b. that the upset was unintentional; c. that the upset resulted from factors beyond the reasonable control of the Permittee and did not result from operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or increases in production which are beyond the design capability of the treatment facilities; d. that at the time of the upset the facility was being properly operated; e. that the Permittee properly notified the Commissioner of the upset in accordance with Minn. R. 7001.1090, subp. 1, item I; and f. that the Permittee implemented the remedial measures required by Minn. R. 7001.0150, subp. 3, item J. [Minn. R. 7001.1090]
5.9.99	Release. [Minn. R. 7001]
5.9.100	<p>Unauthorized Releases of Wastewater Prohibited. Except for discharges from outfalls specifically authorized by this permit, overflows, discharges, spills, or other releases of wastewater or materials to the environment, whether intentional or not, are prohibited. However, the MPCA will consider the Permittee's compliance with permit requirements, frequency of release, quantity, type, location, and other relevant factors when determining appropriate action. [Minn. Stat. ch. 115.061]</p>
5.9.101	<p>Discovery of a release. Upon discovery of a release, the Permittee shall:</p> <ul style="list-style-type: none"> a. Take all reasonable steps to immediately end the release. b. Notify the Minnesota Department of Public Safety Duty Officer at 1(800)422-0798 or (651)649-5451 (metro area) immediately upon discovery of the release. You may contact the MPCA during business hours at 1(800)657-3864 or (651)296-6300 (metro area). c. Recover as rapidly and as thoroughly as possible all substances and materials released or immediately take other action as may be reasonably possible to minimize or abate pollution to waters of the state or potential impacts to human health caused thereby. If the released materials or substances cannot be immediately or completely recovered, the Permittee shall contact the MPCA. If directed by the MPCA, the Permittee shall consult with other local, state or federal agencies (such as the Minnesota Department of Natural Resources and/or the Wetland Conservation Act authority) for implementation of additional clean-up or remediation activities in wetland or other sensitive areas. [Minn. R. 7001.1090]
5.9.102	<p>Sampling of a release. Upon discovery of a release, the Permittee shall:</p> <ul style="list-style-type: none"> a. Collect representative samples of the release. The Permittee shall sample the release for parameters of concern immediately following discovery of the release. The Permittee may contact the MPCA during business hours to discuss the sampling parameters and protocol. In addition, Fecal Coliform Bacteria samples shall be collected where it is determined by the Permittee that the release contains or may contain sewage. If the release cannot be immediately stopped, the Permittee shall consult with MPCA regarding additional sampling requirements. Samples shall be collected at least, but not limited to, two times per week for as long as the release continues. b. Submit the sampling results on the Release Sampling Form (http://www.pca.state.mn.us/index.php/view-document.html?gid=18867). The Release Sampling Form shall be submitted to the MPCA with the next DMR or within 30 days whichever is sooner. [Minn. R. 7001.1090]
5.9.103	Bypass. [Minn. R. 7001]

5.9.104	<p>Anticipated bypass. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if the bypass is for essential maintenance to assure efficient operation of the facility. The permittee shall submit prior notice, if possible at least ten days before the date of the bypass to the MPCA.</p> <p>The notice of the need for an anticipated bypass shall include the following information:</p> <ul style="list-style-type: none"> a. the proposed date and estimated duration of the bypass; b. the alternatives to bypassing; and c. a proposal for effluent sampling during the bypass. Any bypass wastewater shall enter waters of the state from outfalls specifically authorized by this permit. Therefore, samples shall be collected at the frequency and location identified in this permit or two times per week for as long as the bypass continues, whichever is more frequent. [Minn. R. 7001.1090, 1(J)]
5.9.105	<p>All other bypasses are prohibited. The MPCA may take enforcement action against the Permittee for a bypass, unless the specific conditions described in Minn. R. Ch. 7001.1090 subp. 1, K and 122.41(m)(4)(i) are met.</p> <p>In the event of an unanticipated bypass, the permittee shall:</p> <ul style="list-style-type: none"> a. Take all reasonable steps to immediately end the bypass. b. Notify the Minnesota Department of Public Safety Duty Officer at 1(800)422-0798 or (651)649-5451 (metro area) immediately upon commencement of the bypass. You may contact the MPCA during business hours at 1(800)657-3864 or (651)296-6300 (metro area). c. Immediately take action as may be reasonably possible to minimize or abate pollution to waters of the state or potential impacts to human health caused thereby. If directed by the MPCA, the Permittee shall consult with other local, state or federal agencies for implementation of abatement, clean-up, or remediation activities. d. Only allow bypass wastewater as specified in this section to enter waters of the state from outfalls specifically authorized by this permit. Samples shall be collected at the frequency and location identified in this permit or two times per week for as long as the bypass continues, whichever is more frequent. The permittee shall also follow the reporting requirements for effluent violations as specified in this permit. [40 CFR 122.41(m)(4)(i), Minn. R. 7001.1090, 1(K), Minn. Stat. ch. 115.061]
5.9.106	<p>Operation and Maintenance. [Minn. R. 7001]</p>
5.9.107	<p>The Permittee shall at all times properly operate and maintain the facilities and systems of treatment and control, and the appurtenances related to them which are installed or used by the Permittee to achieve compliance with the conditions of the permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. The Permittee shall install and maintain appropriate backup or auxiliary facilities if they are necessary to achieve compliance with the conditions of the permit and, for all permits other than hazardous waste facility permits, if these backup or auxiliary facilities are technically and economically feasible Minn. R. 7001.0150, subp. 3, item F. [Minn. R. 7001.0150, 3(F)]</p>
5.9.108	<p>In the event of a reduction or loss of effective treatment of wastewater at the facility, the Permittee shall control production or curtail its discharges to the extent necessary to maintain compliance with the terms and conditions of this permit. The Permittee shall continue this control or curtailment until the wastewater treatment facility has been restored or until an alternative method of treatment is provided. [Minn. R. 7001.1090, 1(C)]</p>
5.9.109	<p>Solids Management. The Permittee shall properly store, transport, and dispose of biosolids, septage, sediments, residual solids, filter backwash, screenings, oil, grease, and other substances so that pollutants do not enter surface waters or ground waters of the state. Solids should be disposed of in accordance with local, state and federal requirements. [40 CFR 503, Minn. R. 7041]</p>
5.9.110	<p>Scheduled Maintenance. The Permittee shall schedule maintenance of the treatment works during non-critical water quality periods to prevent degradation of water quality, except where emergency maintenance is required to prevent a condition that would be detrimental to water quality or human health. [Minn. R. 7001.0150, 3(F), Minn. R. 7001.150, 2(B)]</p>

5.9.111	Control Tests. In-plant control tests shall be conducted at a frequency adequate to ensure compliance with the conditions of this permit. [Minn. R. 7001.0150, 3(F), Minn. R. 7001.150, 2(B)]
5.9.112	Changes to the Facility or Permit. [Minn. R. 7001]
5.9.113	<p>Permit Modifications. Except as provided under Minnesota Statutes, section 115.07, subdivisions 1 and 3, no person required by statute or rule to obtain a permit may construct, install, modify, or operate the facility to be permitted, nor shall a person commence an activity for which a permit is required by statute or rule until the agency has issued a written permit for the facility or activity.</p> <p>Permittees that propose to make a change to the facility or discharge that requires a permit modification shall follow Minn. R. 7001.0190. If the Permittee cannot determine whether a permit modification is needed, the Permittee shall contact the MPCA prior to any action. It is recommended that the application for permit modification be submitted to the MPCA at least 180 days prior to the planned change. [Minn. R. 7001.0030]</p>
5.9.114	<p>Plans, specifications and MPCA approval are not necessary when maintenance dictates the need for installation of new equipment, provided the equipment is the same design size and has the same design intent. For instance, a broken pipe, lift station pump, aerator, or blower can be replaced with the same design-sized equipment without MPCA approval.</p> <p>If the proposed construction is not expressly authorized by this permit, it may require a permit modification. If the construction project requires an Environmental Assessment Worksheet under Minn. R. 4410, no construction shall begin until a negative declaration is issued and all approvals are received or implemented. [Minn. R. 7001.0030]</p>
5.9.115	Report Changes. The Permittee shall give advance notice as soon as possible to the MPCA of any substantial changes in operational procedures, activities that may alter the nature or frequency of the discharge, and/or material factors that may affect compliance with the conditions of this permit. [Minn. R. 7001.0150, 3(M)]
5.9.116	<p>Chemical Additives. The Permittee shall receive prior written approval from the MPCA before increasing the use of a chemical additive authorized by this permit, or using a chemical additive not authorized by this permit, in quantities or concentrations that have the potential to change the characteristics, nature and/or quality of the discharge.</p> <p>The Permittee shall request approval for an increased or new use of a chemical additive at least 60 days, or as soon as possible, before the proposed increased or new use. This written request shall include at least the following information for the proposed additive:</p> <ul style="list-style-type: none">a. The process for which the additive will be used;b. Safety Data Sheet (SDS) which shall include aquatic toxicity, human health, and environmental fate information for the proposed additive. The aquatic toxicity information shall include at minimum the results of: a) a 48-hour LC50 or EC50 acute study for a North American freshwater planktonic crustacean (either Ceriodaphnia or Daphnia sp.) and b) a 96-hour LC50 acute study for rainbow trout, bluegill or fathead minnow or another North American freshwater aquatic species other than a planktonic crustacean;c. a complete product use and instruction label;d. the commercial and chemical names and Chemical Abstract Survey (CAS) number for all ingredients in the additive (if the MSDS does not include information on chemical composition, including percentages for each ingredient totaling to 100%, the Permittee shall contact the supplier to have this information provided); ande. The proposed method of application, application frequency, concentration, and daily average and maximum rates of use. <p>Upon review of the information submitted regarding the proposed chemical additive, the MPCA may require additional information be submitted for consideration. This permit may be modified to restrict the use or discharge of a chemical additive and include additional influent and effluent monitoring requirements. Approval for the use of an additive shall not justify the exceedance of any effluent limitation nor shall it be used as a defense against pollutant levels in the discharge causing or contributing to the violation of a water quality standard. [Minn. R. 7001.0170]</p>

5.9.117	MPCA Initiated Permit Modification, Suspension, or Revocation. The MPCA may modify or revoke and reissue this permit pursuant to Minn. R. 7001.0170. The MPCA may revoke without reissuance this permit pursuant to Minn. R. 7001.0180. [Minn. R. 7001.0170, Minn. R. 7001.0180]
5.9.118	TMDL Impacts. Facilities that discharge to an impaired surface water, watershed or drainage basin may be required to comply with additional permits or permit requirements, including additional restriction or relaxation of limits and monitoring as authorized by the CWA 303(d)(4)(A) and 40 CFR 122.44.l.2.i, necessary to ensure consistency with the assumptions and requirements of any applicable US EPA approved wasteload allocations resulting from Total Maximum Daily Load (TMDL) studies. [Minn. R. 7001]
5.9.119	Permit Transfer. The permit is not transferable to any person without the express written approval of the Agency after compliance with the requirements of Minn. R. 7001.0190. A person to whom the permit has been transferred shall comply with the conditions of the permit. [Minn. R. 7001.0150, 3(N)]
5.9.120	<p>Facility Closure. The Permittee is responsible for closure and post-closure care of the facility. The Permittee shall notify the MPCA of a significant reduction or cessation of the activities described in this permit at least 180 days before the reduction or cessation. The MPCA may require the Permittee to provide to the MPCA a facility Closure Plan for approval.</p> <p>Facility closure that could result in a potential long-term water quality concern, such as the ongoing discharge of wastewater to surface or ground water, may require a permit modification or reissuance.</p> <p>The MPCA may require the Permittee to establish and maintain financial assurance to ensure performance of certain obligations under this permit, including closure, post-closure care and remedial action at the facility. If financial assurance is required, the amount and type of financial assurance, and proposed modifications to previously MPCA-approved financial assurance, shall be approved by the MPCA. [Minn. Stat. ch. 116.07, 4]</p>
5.9.121	<p>Permit Reissuance. If the Permittee desires to continue permit coverage beyond the date of permit expiration, the Permittee shall submit an application for permit reissuance : Due by 180 days prior to permit expiration. If the Permittee does not intend to continue the activities authorized by this permit after the expiration date of this permit, the Permittee shall notify the MPCA in writing at least 180 days before permit expiration.</p> <p>If the Permittee has submitted a timely application for permit reissuance, the Permittee may continue to conduct the activities authorized by this permit, in compliance with the requirements of this permit, until the MPCA takes final action on the application, unless the MPCA determines any of the following (Minn. R. 7001.0040 and 7001.0160):</p> <ol style="list-style-type: none"> a. The Permittee is not in substantial compliance with the requirements of this permit, or with a stipulation agreement or compliance schedule designed to bring the Permittee into compliance with this permit; b. The MPCA, as a result of an action or failure to act by the Permittee, has been unable to take final action on the application on or before the expiration date of the permit; c. The Permittee has submitted an application with major deficiencies or has failed to properly supplement the application in a timely manner after being informed of deficiencies. [Minn. R. 7001.0160]

6. Submittal action summary

WS 001	Influent Waste	Waste Stream: Spray Irrigation Influent Requirements
	6.1.1	The Permittee shall submit a monthly DMR : Due by 21 days after the end of each calendar month following permit issuance. [Minn. R. 7001.0150, Subp. 2(B)]
WS 002	Intermediate: WW to Land	Waste Stream: Spray Irrigation Pond Effluent Requirements
	6.2.1	The Permittee shall submit a monthly DMR : Due by 21 days after the end of each calendar month following permit issuance. [Minn. R. 7001.0150, Subp. 2(B)]
MN0052302	Blackduck WWTP	Spray Irrigation
	6.3.1	The Permittee shall submit a land application of wastewater annual report : Due by January 21 of each year following permit issuance. [Minn. R. 7001.0150, 3(F)]
		Total Facility Requirements (SDS)
	6.4.2	<p>Permit Reissuance. If the Permittee desires to continue permit coverage beyond the date of permit expiration, the Permittee shall submit an application for permit reissuance : Due by 180 days prior to permit expiration. If the Permittee does not intend to continue the activities authorized by this permit after the expiration date of this permit, the Permittee shall notify the MPCA in writing at least 180 days before permit expiration.</p> <p>If the Permittee has submitted a timely application for permit reissuance, the Permittee may continue to conduct the activities authorized by this permit, in compliance with the requirements of this permit, until the MPCA takes final action on the application, unless the MPCA determines any of the following (Minn. R. 7001.0040 and 7001.0160):</p> <ul style="list-style-type: none"> a. The Permittee is not in substantial compliance with the requirements of this permit, or with a stipulation agreement or compliance schedule designed to bring the Permittee into compliance with this permit; b. The MPCA, as a result of an action or failure to act by the Permittee, has been unable to take final action on the application on or before the expiration date of the permit; c. The Permittee has submitted an application with major deficiencies or has failed to properly supplement the application in a timely manner after being informed of deficiencies. [Minn. R. 7001.0160]

7. Limits and monitoring

Subject item	Parameter	Discharge limitations					Monitoring requirements					Notes		
		Quantity /Loading avg.	Quantity /Loading max.	Quantity /Loading units	Quality /Conc. min.	Quality /Conc. avg.	Quality /Conc. max.	Quality/ Conc. units	Frequency	Sample type	Effective period			
WS 001 Influent Waste Stream	BOD, Carbonaceous 05 Day (20 Deg C)					Monitor only, calendar quarter average					once per quarter	4-Hour Flow Composite	Mar, Jun, Sep, Dec	
WS 001 Influent Waste Stream	Flow		Monitor only, calendar month total	million gallons		Monitor only, calendar month average	Monitor only, calendar month maximum	million gallons per day		once per day	Measurement, Continuous		Jan-Dec	
WS 001 Influent Waste Stream	pH						Monitor only, calendar quarter maximum	standard units		once per quarter	Grab		Mar, Jun, Sep, Dec	
WS 001 Influent Waste Stream	Precipitation		Monitor only, calendar month total	inches						once per day	Measurement		Jan-Dec	
WS 001 Influent Waste Stream	Solids, Total Suspended (TSS)					Monitor only, calendar quarter average		milligrams per liter		once per quarter	4-Hour Flow Composite		Mar, Jun, Sep, Dec	
WS 002 Effluent to Spray Irrigation Site	Area Of Disposal, Used		158 calendar month maximum	acres						once per day	Measurement		Apr-Nov	
WS 002 Effluent to Spray Irrigation Site	Chloride, Total					Monitor only, calendar month average		milligrams per liter		once per month	Grab		Apr-Nov	

Subject Item	Discharge limitations					Monitoring requirements					Notes	
	Parameter	Quantity /Loading avg.	Quantity /Loading max.	Quantity /Loading units.	Quality /Conc. /min.	Quality /Conc. avg.	Quality /Conc. max.	Quality/ Conc. units	Frequency	Sample type		Effective period
WS 002 Effluent to Spray Irrigation Site	Fecal Coliform, MPN or Membrane Filter 44.5C					200 calendar month geometric mean		organisms per 100 milliliter	once per month	Grab	Apr-Nov	
WS 002 Effluent to Spray Irrigation Site	Flow		Monitor only. calendar month total	million gallons		Monitor only. calendar month average	Monitor only. calendar month maximum	million gallons per day	once per day	Measurement, Continuous	Apr-Nov	
WS 002 Effluent to Spray Irrigation Site	Flow		Monitor only. calendar month total intervention	million gallons		Monitor only. calendar month average intervention	Monitor only. calendar month max intervention limit	million gallons per day	once per day	Measurement, Continuous	Dec-Mar	The intervention limit is 0 MG. If this limit is exceeded, the Permittee must take action as described in the Spray Irrigation Outside of acceptable Land Application Periods section of the Spray Irrigation chapter of the permit.
WS 002 Effluent to Spray Irrigation Site	Nitrite Plus Nitrate, Total (as N)					Monitor only. calendar month average		milligrams per liter	once per month	Grab	Apr-Nov	
WS 002 Effluent to Spray Irrigation Site	Nitrogen, Ammonia, Total (as N)					Monitor only. calendar month average		milligrams per liter	once per month	Grab	Apr-Nov	
WS 002 Effluent to Spray Irrigation Site	Nitrogen, Kjeldahl, Total					Monitor only. calendar month average		milligrams per liter	once per month	Grab	Apr-Nov	

Subject item	Parameter	Discharge limitations				Monitoring requirements					Notes	
		Quantity /Loading avg.	Quantity /Loading max.	Quantity /Loading units	Quality /Conc. min.	Quality /Conc. avg.	Quality /Conc. max.	Quality/ Conc. units	Frequency	Sample type		Effective period
WS 002 Effluent to Spray Irrigation Site	pH						Monitor only. calendar month maximum	standard units	once per month	Grab	Apr-Nov	
WS 002 Effluent to Spray Irrigation Site	Specific Conductance						Monitor only. calendar month maximum	micromhos per cm	once per month	Grab	Apr-Nov	

8. Spray Irrigation Site with Soil Monitoring Requirements: LA 301

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
Nitrogen, Total Annual Loading Rates	Monitor Only	lb/acr	Calendar Year Total	Jan-Dec	Calculation	1/year	1
Organic Matter, Total in Soil	Monitor Only	%	Calendar Year Maximum	Jan-Dec	Composite	1/year	2
pH, 1 to 1 Soil to Water	Monitor Only	SU	Calendar Year Maximum	Jan-Dec	Composite	1/year	2
Phosphorus, BRAY-1 Ext in Soil	Monitor Only	ppm	Calendar Year Maximum	Jan-Dec	Composite	1/year	2
Potassium, NH ₄ AC, Exch in Soil	Monitor Only	ppm	Calendar Year Maximum	Jan-Dec	Composite	1/year	2
Salts, Water Soluble in Soil	3.0	mmhos/cm	Calendar Year Maximum	Jan-Dec	Composite	1/year	2

1. Calculate as flow-weighted sum of total annual mass Kjeldahl nitrogen and nitrate-plus-nitrite applied to site, divided by the acreage of the site. Limit applies to the sum of all sources of nitrogen applied to the site.
2. Sample before irrigation or application of commercial or other supplemental fertilizer. The composite shall consist of a mixture of 15-20 subsamples taken from a 0 to 8 inch core. At least one composite sample shall be collected for each 40 acres.